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Missouri Medicine

Vol. 78, No. 1 (ISSN 0026-6620) January, 1981

123rd ANNUAL SESSION

Preliminary Program

Control of Massive Duodenal Ulcer Hemorrhage

Ovarian Cancer: Current Management

Controlled Trial of the Effectiveness of Randomized Wound Closures

Immunotherapy in Colorectal Cancer

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Missouri Medicine

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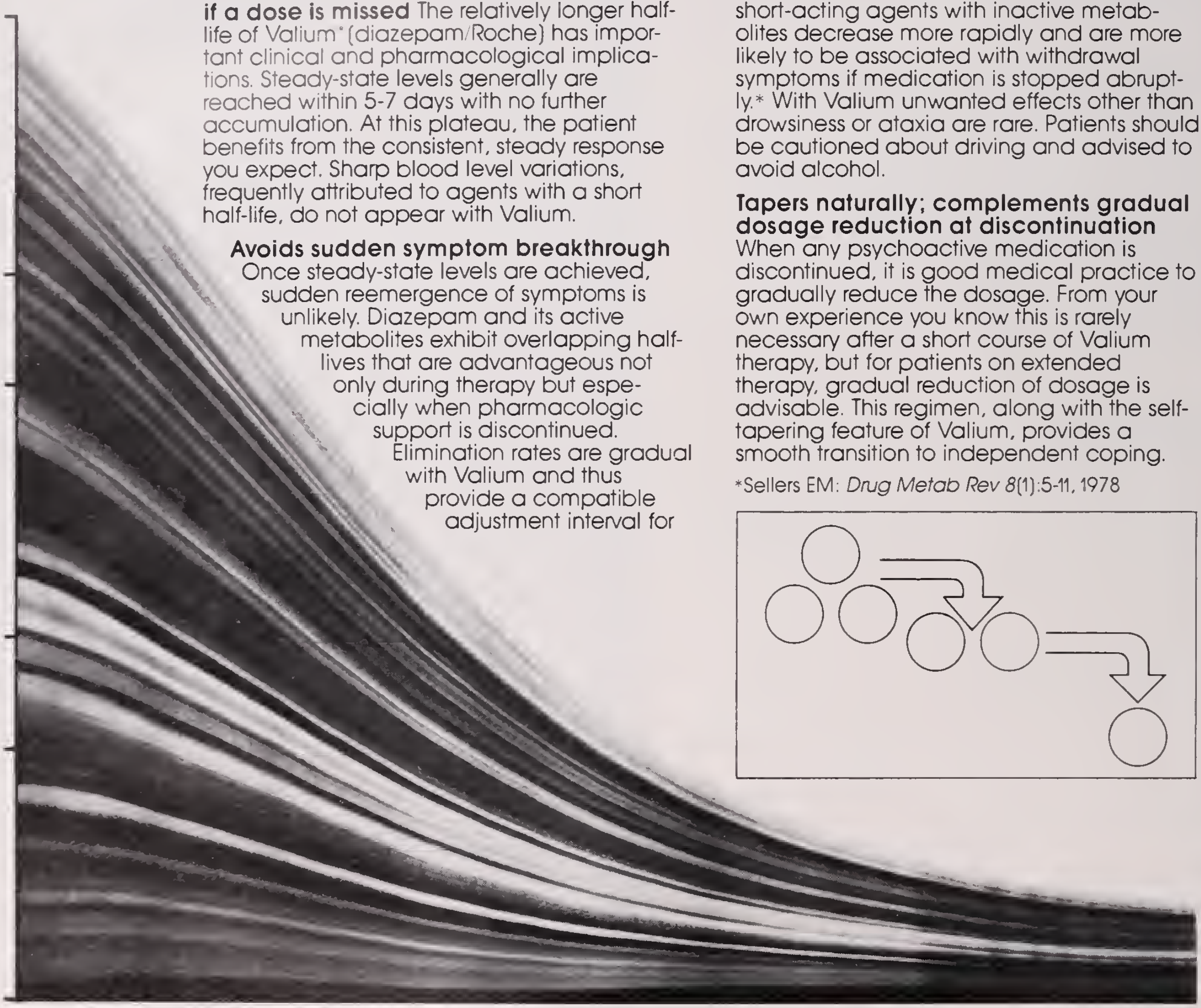

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A registration fee of $600 00 for Seminar I, or $300 00 for Semina II should accompany the registration form.

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MSMA

NEWS
ROUND-UP

January, 1981

Council considers resolutions, makes appointments

During the December 13 meeting in Jefferson City, the MSMA Council took action on resolutions referred to it by the 1980 Interim Session of the House of Delegates. Members of the Council voted to refer the portion of Resolution 2 regarding assessment for student expenses to the Budget and Finance Committee for study and report back to the 1981 Annual Session

The Council also acted upon the following:

Resolution 3) Committee on Chronically Mentally Ill — appointed a committee consisting of Richard T. Quick, M.D., chairman; Maria E. Manion, M.D.; Armando R. Favazza, M.D.; Robijn K. Hornstra, M.D.; Nicola Y. Kaft, M.D.; and William F. Clary, M.D.

Resolution 5) Toxic Waste Disposal — referred to the Commissions of Public Affairs and Interspecialty Medicine.

Resolution 13) Health of School Teachers — appointed an ad hoc committee for study and report back to the 1981 Annual Session. The committee consists of Donald A. Potts, M.D., chairman; B. A. Moranville, M.D.; Robert H. Tanner, M.D.; Tom A. Johnson, M.D.; and Paul B. Anderson, M.D.

Also at the December meeting, the Council approved the report of the MSMA Budget and Finance Committee. The Council also approved the Budget Committee recommendation that income from I.C. Systems (collection agency) be placed in the reserve fund.

In other actions, the Council:

- authorized the MSMA staff to provide, under contract, administrative services to the Missouri Ophthalmological Society.
- approved the report of the Committee on Legislative Affairs on the bills which have been pre-filed for the 1981 Missouri General Assembly.
- authorized MSMA Treasurer Carol F. Williams M.D., and MSMA President Richard V. Bradley, M.D., to sign the following MOMEDICO documents: joint MSMA-MOMEDICO patient safety program, note and collateral pledge agreement.
- approved the appointment of Andrew E. Galakatos, M.D., to represent the MSMA on the Missouri Division of Mental Health Task Force to review the problem of diversion of controlled substances.
- approved the Budget Committee recommendation to increase the travel insurance which covers MSMA staff and members travelling on Association business from $25,000 to $100,000.
- referred to the Publications Committee and the Budget Committee for further study the possibility of distributing MISSOURI MEDICINE to all non-member M.D.s in Missouri.
- approved 3-year CME re-accreditation for Faith Hospital, St. Louis.
- endorsed the following physicians for the indicated AMA positions:

Charles B. Wilkinson, M.D., AMA Council on Long Range Planning

George E. Thoma, M.D., AMA Council on Medical Education

John N. Martin, M.D., AMPAC Board of Directors

- approved the report of the Ad Hoc Committee to Study the Nursing Shortage.
- requested that the proposed changes in the Missouri Statutes regarding the future operation of Ellis Fischel Cancer Hospital be submitted to the Legislative Committee for study.

Constitutional change required to discontinue Interim Session

A change in the MSMA Constitution will be voted on by delegates at the Annual Session, April 9-12, 1981. This change is necessary to implement the resolution to discontinue the Interim Session as adopted by the House of Delegates at the 1980 Interim Session.

As stated in the Constitution, any constitutional change must be published prior to its submission to the House.

The change amends **Article VI. Session and Meetings** of the Constitution to read:

> *"The Association shall hold an annual Spring session of the House of Delegates at a place fixed by the House of Delegates, the time of which shall be fixed by Council."*

Resolution deadline for Annual Session is Feb. 23

MSMA members, component medical societies and medical student delegates who wish to introduce resolutions at the 1981 Annual Session of the Missouri State Medical Association must submit these resolutions by February 23 for insertion in the Delegate's Handbook.

Any resolution introduced after that time must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. Sufficient copies of the resolution must be supplied by the individual or society sponsoring the resolution.

At the second session of the House, the same procedure must be followed, but such introduction requires two thirds approval of the House of Delegates. Unanimous approval is needed for introduction at the final session.

AMA House takes action on Missouri resolutions

Several resolutions submitted by the Missouri State Medical Association were acted upon during the December AMA Interim Session in San Francisco.

The first resolution called for the establishment of an AMA WATS Line. The resolution, which was under study for the previous year, was not adopted due to the costs involved.

An interim report was presented on an MSMA resolution regarding hospital staff privileges for podiatrists. The Board of Trustees indicated that a comprehensive report on this resolution will be made at the 1981 AMA Annual Session.

During the December AMA meeting, Francis X. Lieb, M.D., St. Louis and George M. Bohigian, M.D., St. Louis, served on AMA reference committees.

Also at the meeting, the AMA House of Delegates voted to support the repeal of the Professional Standards Review Organization, the Planning Act and federal grants to HMOs. Although the AMA has previously opposed both the Planning Act and federal grants to HMOs, the push for elimination of PSROs is a change in AMA policy.

CPI shows lower increase in health care costs

November was the fourth straight month in which inflation in the general economy was higher than the rate of inflation in health care costs.

A report from the Consumer Price Index (CPI) released December 23, 1980 states that the all items component rose 0.9%, compared with the 0.6% increase for the medical care component. Physicians services increased 0.7%, and hospital room charges rose 1.2%.

During the 12 month period November 1979 through November 1980, the all items index rose 12.6% and the medical care component went up 10.7%. Physicians services rose 10.8% and hospital room charges 14.5% during that period.

Three summer tours offered to MSMA members

Several summer trips are being offered by the MSMI for interested Missouri State Medical Association members. All of the tours are being offered by INTRAV and feature a non-regimented schedule plus medical seminars.

A ten day visit to the spectacular Canadian Rockies includes such highlights as Vancouver, Calgary, Lake Louise and Banff. The trip leaves St. Louis and Kansas City on June 12, 1981 and returns June 21, 1981.

The Rhine Alpine Adventure, July 9-21, 1981, offers the opportunity to see the best of Germany, Switzerland and Austria. The trip includes visits to such European highlights as Vienna, Salzburg, Lucerne and Innsbruck.

A twelve day trip to the British Isles departs from St. Louis and Kansas City on July 24th. Tour members will visit Dublin, Ireland, spend two days in an Irish Castle, visit Edinburgh, Scotland and conclude the trip with four days in exciting London.

If you would like additional information on the tours, please write to the Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65102.

New reporting forms required for abortion care

New reporting forms are required by the Missouri Division of Health for the reporting of all abortion care as of January 1, 1981.

The "Induced Termination of Pregnancy Report" has been revised and should be used for all abortions after January 1, 1981. The complication report for post abortion care is a new requirement and should be completed each time a woman receives post abortion care.

Copies of these new forms and requirements were mailed in December to all facilities which perform abortions or provide post abortion care in the state.

In addition, the new requirements for pathologists filing an abortion tissue report with the Missouri Division of Health were also mailed to all Missouri pathologists in December.

If you have any questions concerning the new reporting requirements, contact Garland Land, Missouri Center for Health Statistics, 1511 Christy Lane, P.O. Box 570, Jefferson City, MO 65102.

Spring workshop scheduled for resident physicians

Again this spring, the Missouri State Medical Association will sponsor a two day "Establishing Yourself in Medical Practice" workshop.

The seminar will be held April 30-May 1, 1981 at the Chase Park Plaza in St. Louis.

Geared to teach the practical aspects of setting up a private practice of medicine, this workshop is specifically designed for residents and physicians leaving the military or prepaid groups. Most attendees of past programs have been in their last two years of residency programs.

The program will be presented by Conomikes Associates, a group of nationally recognized medical practice management consultants who work with all specialities in all types of practice settings throughout the United States.

Limited to 30 attendees to ensure maximum participation, the workshop provides practical information about the business side of the medical practice. Participants will receive a comprehensive workbook which will later serve as a permanent practice management reference book.

The registration fee of the two day program will $85. Physicians who have attended the workshop in the past years have commented that "the program is well worth the money" and "a mistake for anyone to miss."

For additional information, please clip the accompanying box and mail it to the MSMA, P.O. Box 1028, Jefferson City, MO 65102.

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Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria leukopenia agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea vomiting diarrhea, constipation, epigastric distress, hyperirritability nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

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RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains

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Phenylephrine Hydrochloride	30 m
Phenylproponolamine Hydrochloride	20 m
Pheniramine Maleate	20 m
Pyrilamine Maleate	20 m
Ammonium Chloride	200 m
Alcohol	5

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant on expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relief c upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, on allergic rhinitis Also, for the temparary relief of symptoms associated with hay feve allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of an ant hypertensive or antidepressant drug containing a monoamine oxidase inhibitor is contraindicated

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asthm and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the patien should be warned of the potential that this drug may be habit forming Ru-Tuss Expec torant may cause drowsiness. Patients should be warned of the possible additive effec caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilizers

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor vehicle or operating dangerous machinery (See Warnings). Caution should be taken with pa tients having hypertension, diabetes, hyperthyroidism and cardiovascular disease Caution should also be used in patients with pulmonary, hepatic or renal insufficiency

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddiness dryness of mucous membranes, tightness of the chest, thickening of bronchial secre tions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hyperten sion, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipa tion, epigastric distress, hyperirritability, nervousness and insomnia Overdoses may cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stupor tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours, not to exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls in any 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to exceed 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as directed by a physician

HOW SUPPLIED

Pint bottles (16 fl oz)	NDC 0524-1010-16

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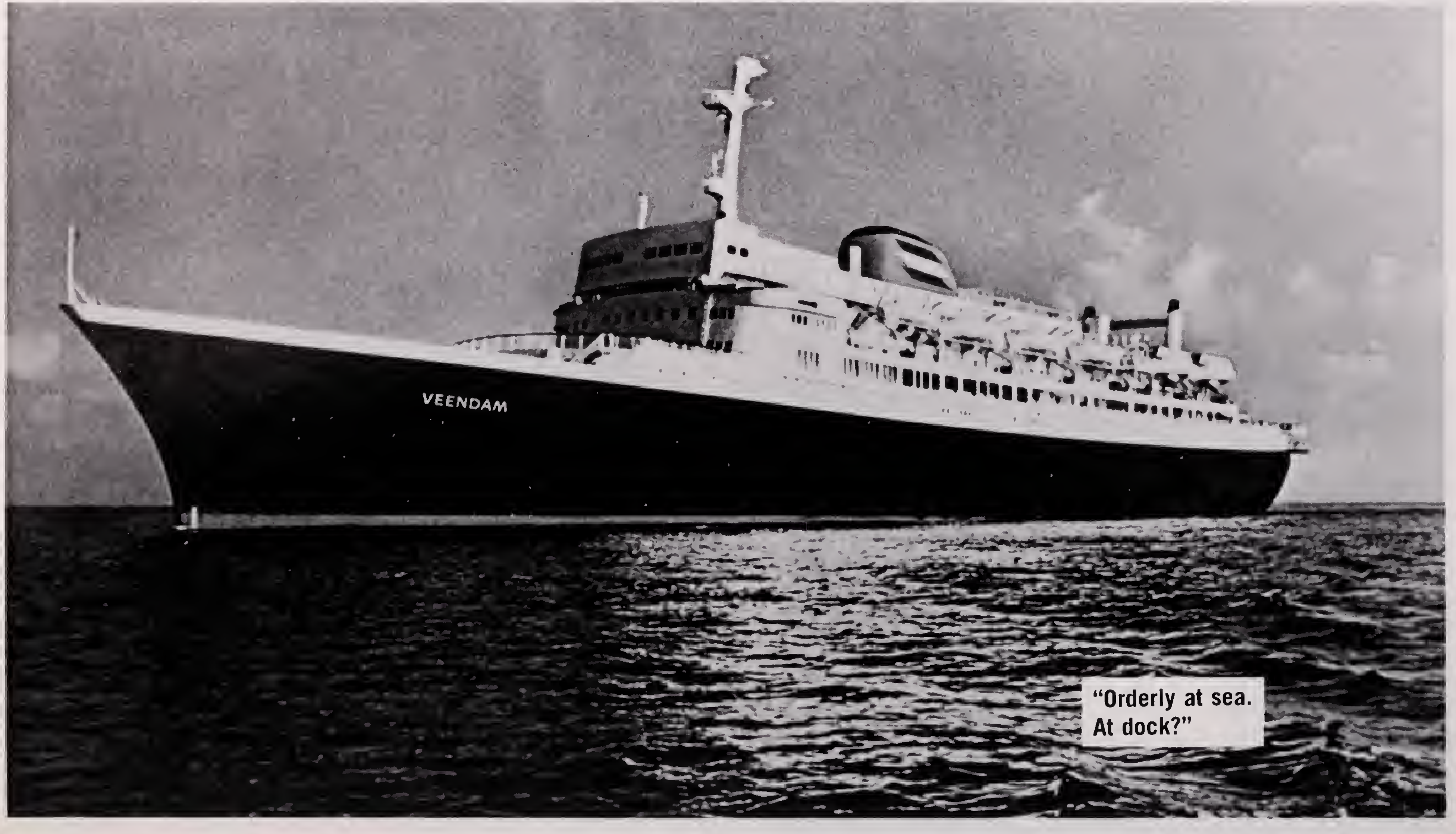


"Orderly at sea.
At dock?"

Editor's Corner

At Sea, With Life

Life aboard a great ship at sea, quite different from that on land, has always charmed me. I do believe life aboard a small ship would charm me even more but, by the time I found it possible, money-wise and time-wise, no freighter (no ship's doctor) would accept one of my vintage.

One might very well say people aboard ship are no different than elsewhere. I will concede that. But they act differently. That difference is much the same as jazzing up your movie projector to double speed.

People who, I am sure, would be stolid citizens in Branson, Missouri and who are probably deacons in the Baptist Church come aboard ship, put on the damndest hats, ogle the ladies, have two martinis before lunch and too many more before dinner to even show up in the dining room. This forces me to believe that hometown bankers are really only frustrated children. Therefore, it follows that I am concerned about the teetering of interest rates which may be quite as much subject to caprice as to reason.

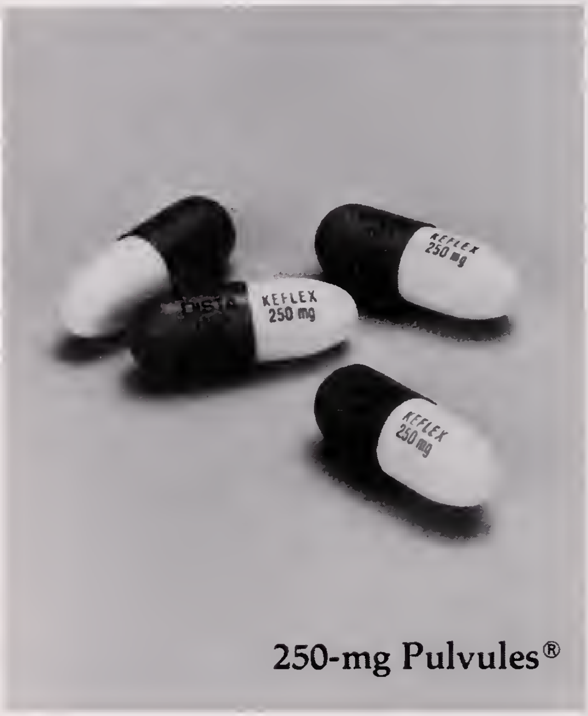
But, the tourist aside, shipboard life proceeds with a degree of logic and precision that one can find nowhere else. It is true there are some quirks about it one must accept. For example, the ship I am now on was built in Argentina for Americans who sold it to the Dutch and it flies a Panamanian flag. However, all that jockeying is due only to low Argentine labor, poor American passenger lines and Dutch taxes, which makes more sense than one can find in most things.

Aside from such mundane matters, ships do operate with fine tuning which is completely enviable. The officers or crew must never, never — *never* tamper with the passengers. This is an offense which would cause even the most tolerant captain to immediately throw overboard his chief mate. As I write this, while sitting out on the fantail, I note the colored lights strung above me; white, blue, yellow, red, green, then again white, blue, yellow, red, green. No room for foolishness. I have a feeling that heads would roll if the blue and yellow were switched around. I just had my first meal in the main dining room. Indonesian waiters, abundant silver and impeccable service which dated back to the balmiest Fred Harvey days. When it came time for dessert, I asked for a glance at the cheese tray. On it, among many others, was a small round of Boursin. I got the first generous portion of it. Today, at lunch, I asked for the cheese tray. "Boursin," asked the waiter. "What else," I replied. Then there appeared a whole four-ounce box of that delicious cheese.

Where else can a person live like that? The big problem is that every ship, and every man, must sometime come to dock. And there the troubles begin.

From:
"Conversations With Myself"
Wilfred E. Wooldridge, M.D.

easy to take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HENRY TYLER, M.D. *and*
CARL G. KARDINAL, M.D., *Columbia*

Ovarian Cancer: Current Management

Ovarian cancer is the most lethal of all gynecologic malignancies.[1] In the United States, there are 17,000 new cases per year and 12,500 deaths. In Missouri, this translates into approximately 400 new cases per year and 300 deaths. Ten of every 1,000 women over age 40 will develop ovarian cancer, but only one or two will be cured. The remainder will die of their disease. These women die frequently because of our inability to control the intraabdominal disease, e.g., intestinal or ureteral obstruction, massive ascites, inanition and malnutrition.

Ovarian cancer remains a constant challenge to the physician. No major impact has been made on overall survival in the last 20 or more years. Although ovarian cancer is curable in its early stages, most patients are first seen with advanced disease. One of the most serious problems remaining in the management of ovarian cancer is early detection. The diagnosis of early ovarian neoplasia by the immunologic assay of tumor-associated antigens may offer some hope for the future. This may be especially true for ovarian cyst-adenocarcinoma-associated antigen (OCAA), but other tumor markers also are being evaluated.[2] The concept of the *PMPO syndrome* has emerged, i.e., any postmenopausal palpable ovary must be considered an ovarian tumor until proved otherwise.[3] Waiting until one feels a solid tumor mass of up to 5 cm and then expecting cure is an exercise in fantasy and futility.

The peak incidence of ovarian cancer is in women between 40 to 65 years of age. The ovary may be too old to function, but it is never too old to form tumors. However, despite apparent early detection and total resection, at least one third of all "early" ovarian cancers will recur. Intraperitoneal dissemination from barely palpable ovarian carcinoma is frustratingly common.

Prognostic Factors

There are three most important prognostic factors in ovarian cancer:

(1) The clinical stage or anatomic extent of the tumor at the time of diagnosis.

Ovarian cancer is the fifth most common cancer in American women and the most common cause of death among gynecologic malignancies. Important advances in management include vigorous surgical staging of early cases, cytoreductive or "debulking" surgery in more advanced cases and improvements in cytotoxic chemotherapy.

Dr. Tyler is a former staff internist-medical oncologist at Ellis Fischel State Cancer Hospital. Formerly Director of Internal Medicine at the Ellis Fischel State Cancer Hospital and Senior Scientist at the Cancer Research Center, Dr. Kardinal is now Medical Oncologist, Ochsner Clinic, New Orleans, La.

This investigation was supported in part by grants No. CA-17946 and No. CA-12046 from the National Cancer Institute, DHHS.

(2) The degree of cellular differentiation (the histologic grade) of the tumor.
(3) The histologic type of ovarian cancer.

The staging system currently in general use is that of the International Federation of Gynecology and Obstetrics (FIGO) and is outlined in Table 1. There is a strong correlation between prognosis and FIGO stage as is illustrated in Table 2.[4] By stage, with all cell types included, 37% of lesions present as clinical stage I, 13% as stage II, 42% as stage III and 8% as stage IV.

Although the staging system appears to be very straightforward, there have been significant problems with *understaging*. Young[5] has estimated that fully one third of all ovarian cancers are understaged at the time of the initial surgery and that accurate staging may be more important than adjuvant therapy in true stages Ia and Ib disease. Forty percent of patients referred to the National Cancer Institute with stage I or II ovarian cancer are found to have disease under the leaves of the diaphragm on reexploration. Initial laparotomy affords the best opportunity to define the extent of disease so that appropriate therapy can be given. With the realization that the peritoneal surfaces of the upper abdomen and diaphragms and the para-aortic nodes are frequent sites of metastatic spread, it has become necessary to abandon traditional infraumbilical incisions in favor of vertical incisions allowing for visual inspection of the upper abdomen.[6] Biopsies of suspicious peritoneal implants, the para-aortic nodes and the inferior surfaces of the diaphragm are now part of the initial surgical staging.

TABLE I
FIGO STAGE GROUPING FOR PRIMARY CARCINOMA OF THE OVARY

Stage I — Growth limited to the ovaries
  Stage Ia — Growth limited to one ovary; no ascites
    (i) No tumor on the external surface; capsule intact
    (ii) Tumor present on the external surface and/or capsule ruptured
  Stage Ib — Growth limited to both ovaries; no ascites
    (i) No tumor on the external surface; capsule intact
    (ii) Tumor present on the external surface and/or capsule(s) ruptured
  Stage Ic — Tumor either stage Ia or stage Ib, but with ascites* present or positive peritoneal washings
Stage II — Growth involving one or both ovaries with pelvic extension
  Stage IIa — Extension and/or metastases to the uterus and/or tubes
  Stage IIb — Extension to other pelvic tissues
  Stage IIc — Tumor either stage IIa or stage IIb, but with ascites* present or positive peritoneal washings
Stage III — Growth involving one or both ovaries with intraperitoneal metastases outside the pelvis or retroperitoneal nodes containing cancer or both
  Tumor limited to the true pelvis with histologically proved malignant extension to small bowel or omentum
Stage IV — Growth involving one or both ovaries with distant metastases; if pleural effusion is present there must be a positive cytology reading to allot a case to stage IV
  Parenchymal liver metastases equals stage IV
Special Category — Unexplored cases that are thought to be ovarian carcinoma

* Ascites is peritoneal effusion which in the opinion of the surgeon is pathologic or clearly exceeds normal amounts or both.

Vigorous surgical staging reveals that true stage II disease is very rare. When the disease is staged at IIb or IIc with macroscopic disease, it should be upstaged to III.[5, 6] Preliminary data on patients with true stages Ia and Ib confirmed by vigorous surgical staging imply that surgery alone is the treatment of choice and that the results are not improved with either adjuvant chemotherapy or postoperative radiotherapy. However, some investigators are recommending postoperative intraperitoneal radioisotopes (^{32}P, ^{198}Au).[7]

Preoperative staging procedures include a barium enema (27% will show abnormal), an intravenous pyelogram (18% will show abnormal) and a lymphangiogram (9% abnormal). Peritoneoscopy may be helpful, also.

The histologic classification of ovarian cancer is an important prognostic variable (Table 3). Approximately 85% to 90% of all ovarian cancers are epithelial in origin. In patients with epithelial ovarian carcinomas, 68% are serous cystadenocarcinomas, 21% are mucinous carcinomas, 5% are endometroid carcinomas and 6% are solid carcinomas. Although survival stage-for-stage in patients with serous cystadenocarcinomas is roughly equivalent to patients with mucinous carcinomas,

TABLE 2
RELATION OF STAGE TO PROGNOSIS*

Stage	*No. of Patients*	*4-Year Survival %*
I	751	61
Ia	528	65
Ib	130	54
Ic	80	52
II	401	40
IIa	40	60
IIb	205	38
III	539	5
IV	101	3

* Modified from Tobias and Griffiths.[4]

patients with mucinous carcinomas have a better prognosis since they are usually first seen in earlier stages of their disease. Stage-for-stage, prognosis for patients with solid carcinomas is worse than that for either serous or mucinous tumors.

The final pathologic variable of prognostic significance is the grade of tumor, i.e., the degree of malignancy of the individual tumor.[8] By grade, with all cell types included, 32% of lesions are grade 1 (<25% undifferentiated cells), 25% are grade 2 (25%-50% undifferentiated cells), 30% are grade 3 (50%-75% undifferentiated cells) and 13% are grade 4 (>75% undifferentiated cells). Prognosis is significantly poorer if tumors are high grade as opposed to well differentiated (of similar histologic type and clinical stage).

Cytoreductive Surgery

Cytoreductive or "debulking" surgery is a relatively new concept that is particularly applicable to patients with stage III and even stage IV ovarian cancer.[6, 9] It is now well documented that patients with stage III disease who have no residual gross tumor following the primary operation survive appreciably longer than patients with more extensive disease. Also, the benefit of either postoperative chemotherapy or radiation therapy is most apparent in patients without palpable disease postoperatively. Although incomplete tumor excision defies the traditional tenets of surgical oncology, the practical value of cytoreductive surgery for a chemotherapy-sensitive tumor is now irrefutable.

The value of debulking has been confirmed also in Burkitt's lymphoma.[10] If 90% of the Burkitt's tumor can be excised, long-term remissions and probable cures could be induced with cyclophosphamide. If subtotal resection (>50% but <90%) of the tumor can be accomplished, remission and survival rates are comparable to those in patients treated without surgical resection. Cytoreductive surgery allows for greater drug exposure and penetration. It may also favorably affect tumor cell kinetics, allowing for greater cell kill with chemotherapeutic agents.

Chemotherapy

Until recently, the standard approach has been to reserve chemotherapy for the treatment of disseminated (stage III or IV) ovarian cancer. For the past 15 or more years, alkylating agents have been the most commonly used antineoplastic agents in this disease.[1, 4, 6] The overall objective response rates to alkylating agents have varied from 22% to as high as 50% with approximately 15% complete remissions.[11] The data are somewhat difficult to interpret, however, because of great variation in patient selection, prognostic factors, response

TABLE 3
HISTOLOGIC CLASSIFICATION OF OVARIAN CANCER
Classification of Ovarian Carcinomas Modified from WHO*

Cell of Origin	*Type of Tumor*
Epithelial cells	Serous cystadenocarcinoma Mucinous carcinoma Endometroid carcinoma Clear cell adenocarcinoma Brenner tumor Undifferentiated carcinoma
Germ cells	Dysgerminomas Endodermal sinus tumor Embryonal teratoma Adult teratoma
Sex cord stromal tumor	Granulosa cell tumor
Germ cells and sex cord cells	Gonadoblastoma

* WHO is the World Health Organization.

TABLE 4
RESPONSE OF OVARIAN CANCER STAGES III, IV TO SINGLE AGENT CHEMOTHERAPY*

	Response Rate	
Alkylating Agents		
Melphalan	47%	(20% CR)
Chlorambucil	50%	
Cyclophosphamide	49%	
Antimetabolites		
5-fluorouracil	32%	(17% CR)
Methotrexate	30%	(13% CR)
Other		
Adriamycin	35%	(18% CR)
Hexamethylmelamine	42%	(32% CR)
Cis-diaminodichloroplatinum	34%	(16% CR)

* This table was developed from information in references #1, #4, #11-#14.

TABLE 5
COMBINATION CHEMOTHERAPY IN OVARIAN CANCER*

Regimen	*N*	*Response Rate*
Hexa-CMF	30/40	74% (33% C.R.)
HAD	18/27	67% (18% C.R.)
CHAD	19/21	90% (47% C.R.)

* This table was developed from information in references #15 and #16.

criteria and other variables, such as histologic type and grade. Representative single agent response data in stages III and IV ovarian cancers are outlined in Table 4. The overall five-year survival rate is 7%.[1, 11]

Since ovarian cancer is responsive to a variety of chemotherapeutic agents with different mechanisms of action, it is ideally suited for combination chemotherapy programs. Only recently, however, have combinations been shown to be superior to single alkylating agents. Also, it is too early to say which combination is the treatment of choice (Table 5). In a randomized study performed at the National Cancer Institute, the combination Hexa-CMF (hexamethylmelamine, cyclophosphamide, methotrexate, 5-fluorouracil) was clearly superior to the single agent melphalan.[15] The overall response rate was 75% for Hexa-CMF vs 54% for melphalan, and the combination treatment produced 33% vs 16% complete remissions. The survival at three years was 70%.

Vogl et al.[16] for the Eastern Cooperative Oncology Group, have reported objective responses of cancers in 18 of 27 patients (67%) receiving the three-drug combination HAD (hexamethylmelamine, adriamycin, cis-diaminodichloroplatinum). By adding cyclophosphamide to this regimen (CHAD), the response rate was increased to 90% (19 of 21), with an unprecedented 47% complete response rate. If this can be confirmed in larger series and if the toxicity is not too great, CHAD may emerge as the treatment of choice for advanced ovarian carcinoma.

ADJUVANT CHEMOTHERAPY

As a postoperative adjuvant in stage II and stage III ovarian cancer, chemotherapy alone is at least as effective as irradiation or irradiation plus chemotherapy.[4] This was clearly demonstrated at the M. D. Anderson Hospital in a randomized trial involving 149 patients with early cancer of the ovary.[17] These patients were randomized between whole abdomen radiation therapy with a pelvic boost or treatment with the single alkylating agent for 12 cycles (one year). Not only was there no difference in the absolute and disease-free survival, there was significantly less morbidity with chemotherapy than with the whole abdomen radiation therapy.

SECOND-LOOK SURGERY

Second-look surgery for stages II and III carcinoma of the ovary should be performed on all patients whose cancers are in complete clinical regression after 12 months of chemotherapy.[18] Also, in patients whose cancers have responded significantly but incompletely to chemotherapy, it might be possible to remove all or almost all of the remaining cancer at the time of the second surgery. If there is no residual disease at the time of the second look, treatment should be discontinued. If there is residual disease that can be resected completely, the patient should continue to receive chemotherapy. If there is residual disease that cannot be resected completely, consideration should be given to altering the chemotherapeutic regimen or to administering treatment with radiation therapy.

CONCLUSIONS

1. One of the most serious problems remaining in the management of ovarian cancer is early detection. The diagnosis of early ovarian neoplasia by the immunologic assay of tumor-associated antigens may offer some hope for the future. This may be especially true for ovarian cystadenocarcinoma-associated antigen (OCAA), but other tumor markers also are being evaluated.[2]
2. Understaging is a significant problem in ovarian cancer, and vigorous initial staging is mandatory for appropriate treatment.
3. If a patient's disease is truly stage Ia or Ib after a vigorous staging evaluation, surgery alone may well be the treatment of choice. However, some investigators are recommending postoperative intraperitoneal radioisotopes (^{32}P, ^{198}Au).[7]
4. True stage II ovarian cancer is rare.
5. Cytoreductive or "debulking" surgery plays an important role in the early management of stages III and IV disease. This allows for greater drug exposure and may even favorably affect tumor cell kinetics.
6. Chemotherapy (single agents and combinations) is very active in ovarian cancer both in the treatment of advanced cases as well as in the adjuvant therapy of early state II and stage III disease.
7. Second-look surgery is of increasing importance in patients whose diseases have shown objective responses to 12 months of chemotherapy.

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1. Bagley, C. M. Jr., Young, R. C., Canellos, G. P. and DeVita, V. T.:

(Continued on page 20)

RON S. FARRIS, M.D. *and*
LARRY V. HAYS, M.D., *Kansas City*

Controlled Trial of the Effectiveness of Randomized Wound Closures

SURGICAL WOUND INFECTIONS continue to be a persistent problem in most institutions. Despite many attempts to diminish infection rates, the overall incidence of postoperative wound infection varies from 3% to 11%. It may approach 30% in dirty wounds.[1] More recent studies indicate that infection rates still run greater than 5% in most institutions.[2]

In a recent study by Dr. D. C. McIlrath, an attempt was made to reduce the postoperative infection rates with a technique of primary wound closure over a closed catheter system using periodic antibiotic irrigations. The overall wound infection rate was reported to be 0.8% for 500 patients.[3] However, one might question the relative contribution of the topical antibiotics vs the benefit of suction, saline irrigation and uniform closure. Dr. Henry Buchwald has cited a subseries of 600 patients undergoing jejunoileal bypass for morbid obesity by using primary closure over large catheters and saline irrigation with a 2% wound infection rate.[3] The presence of controls in the study would firmly establish that the suction catheters and antibiotic irrigation, not technique, were responsible for the decreased rate.

In an attempt to establish controls, we have conceived a prospective randomized study comparing controls with catheter suction involving either saline or antibiotic irrigation. The patients were selected for each of the three closures by the surgery staff, so that technique of the individual surgeons and physical factors of the patient were reduced as variables.

METHOD

The closure of 176 patients was chosen into a control group. The second group were those with catheter suction with saline irrigation. The third group were treated with catheter suction with antibiotic irrigation (Table 1).

Skin preparation and wound closure: In contrast to the Mayo Clinic study by Dr. McIlrath, skin preparation and wound closure were not standardized. However, individual surgeons used similar preparations and closures on their own patients in all three groups decreasing this as a variable. All control wounds were primarily closed and all wounds were checked daily by a physician. Purulent material was cultured for aerobic and anaerobic bacteria in ten of 12 infections.

Patient division: Sixty-two patients were randomly selected into the Protocol I group. These wounds were primarily closed according to the preference of the physician. Fifty-seven patients were randomly selected for the Protocol II group. The wounds were primarily closed over a closed suction catheter system and placed on a suction device. Five cubic centimeters of saline were inserted through the catheter every eight hours only to ensure patency. At no time were the catheters clamped. Fifty-seven patients were randomly chosen for Protocol III, which included primary skin closure over a subcutaneous catheter with a suction device. Antibiotic irrigation, using 5cc to 20cc, depending upon the wound size, was inserted via the catheter and the catheter was clamped for 20 minutes. The catheter was then returned to hemovac suction and the process was

After their randomized studies of surgical wound infections, which are still a problem in most institutions, the authors believe that closed suction drainage of the subcutaneous space in wounds is superior to suture closure. They conclude that antibiotic irrigation of the subcutaneous space did not alter the infection rate.

Dr. Farris is Assistant Professor of Surgery at the University of Missouri-Kansas City School of Medicine and a staff member at Truman Medical Center. Dr. Hays is Assistant Professor of Surgery at the School of Medicine and Associate Director of Education-General Surgery at St. Luke's Hospital.

TABLE 1
DISTRIBUTION

Type		*Procedure*
Appendectomy (Appendicitis)		13
Biliary Tract		70
Cholecystectomy	59	
Cholecystectomy and C.D.E.	8	
C.D.E.	2	
Cholecystostomy (Pancreatitis)	1	
Large intestine		41
Colectomies	36	
Colostomies	2	
Colostomy closure	3	
Splenectomy		6
Small bowel		10
Small bowel resection	2	
Stomach		12
Feeding gastrostomy	1	
V and P	7	
Gastric resection	2	
Mason shunt	1	
Perforated peptic ulcer	1	
Exploratory laparotomy		5
Hernia		10
Miscellaneous		15
Total		182*

* 176 operations.

TABLE 2
CLASSIFICATION OF WOUNDS* AND INCIDENCE OF INFECTION — 62 PATIENTS

Protocol I	*No. Pts.*	*No. Post-Op Wound Infections*	*Percent*
I Clean	26	1	3.85
II Clean contaminated	28	3	10.71
III Contaminated	2	0	0
IV Dirty	6	1	16.67

* National Research Council Study of 1964.

TABLE 3
TYPES OF OPERATION BY ANATOMIC SITE AND INCIDENCE OF WOUND INFECTION — PROTOCOL I, 62 PATIENTS

Site	*No. Pts.*	*Post-Op Infections*	*Percent*
Appendix	5	0	0
Biliary tract	21	2*	9.5
Large intestine	13	1	7.7
Small intestine	6	1	16.7
Stomach	4	2*	50.0
Spleen	3	0	0
Hernia	4	0	0

* One cholecystectomy plus V and P — same operation.

TABLE 4
CLASSIFICATION OF WOUNDS* AND INCIDENCE OF INFECTION — 57 PATIENTS

Protocol II	*No. Pts.*	*No. Post-Op Wound Infections*	*Percent*
I Clean	30	2	6.7
II Clean contaminated	18	0	0
III Contaminated	6	0	0
IV Dirty	3	0	0

* National Research Council Study of 1964.

repeated every eight hours.

In groups II and III, no subcutaneous fat sutures were inserted. The antibiotic solution consisted of adding 0.5 gm of neomycin, 0.1 gm of polymyxin and 80 mg of gentamicin to 1,000 cc of normal saline. The catheters were removed on the fourth day after operation.

RESULTS

The standard closure Protocol I group had a total of 62 patients with five wound infections for an 8.06% infection rate. Wounds were classified according to the National Research Council study of 1964. There was one "clean wound" infection (cholecystectomy) for a 3.85% wound infection rate. Three of 28 "clean-contaminated" cases were infected for a 10.71% infection rate. These cases included a small bowel resection, feeding gastrostomy and a cholecystectomy associated with a vagotomy + pyloroplasty. There were no "contaminated wound" infections, but one of six "dirty wound" cases was infected for a 16.7% infection rate (Tables 2 & 3). There were no posthospitalization late infections on office follow-up for the control group.

There was one hospital infection in the Protocol II group for a 1.75% wound infection rate. This occurred in a clean cholecystectomy. Frank pus was noted in the wound abscess but no culture was obtained. One clean cholecystectomy had a coagulase positive staph aureus wound abscess drained on the first follow-up visit, giving a total wound infection rate of 3.5% in the suction plus saline group. Breakdown of infections by classification and type of operations are shown on Tables 4 and 5. All patients were followed until the termination of postoperative care.

The Protocol III group using suction plus antibiotics had a total of four wound infections out of 57 patients for a 7.0% wound infection rate. Two of 19 clean infections were noted for a 10.5%

TABLE 5
TYPES OF OPERATION BY ANATOMIC SITE AND INCIDENCE OF WOUND INFECTION — PROTOCOL II, 57 PATIENTS

Site	*No. Pts.*	*No. Infections*	*Percent*
Appendix	4	0	0
Biliary tract	30	2	6.7
Large intestine	12	0	0
Small intestine	1	0	0
Stomach	2	0	0
Spleen	1	0	0
Hernia	5	0	0
Miscellaneous	5	0	0

infection rate. Both infections followed cholecystectomies. One clean-contaminated colon resection and one dirty Hartman I resection became infected. No contaminated wounds became infected (Table 6 and 7). Three of the four infections in this protocol group were cultured and were significant in that they all contained Bacteroides species. Table 8 lists the contaminants from all three protocol group abscesses that were cultured. One clean cholecystectomy had a seroma drained one month after operation which cultured coagulase positive staph aureus. This gave a total overall wound infection rate of 8.8% for Protocol III.

The average age of noninfected patients was 55.6 years compared to 58.4 years in the infected group. However, in patients who are 30 years and younger, no infections were noted out of 25 patients while five of 50 patients 68 years and older developed wound infections for a 10% infection rate.

Discussion

Preoperative and early postoperative systemic antibiotics have been shown to decrease wound infections when the stomach and intestines are entered. When the onset of therapy is delayed more than 12 hours in contaminated incisions, the effectiveness of antimicrobial therapy is markedly diminished.[4] High pressure irrigation in traumatic wounds has been shown to be effective and the pressure at which the irrigation fluid is delivered to the wound appears to be the most important determinant of success with the contamination.[5] This has been shown to be more effective in reducing the bacterial population in wounds than is irrigation with a bulb syringe.[6]

It has long been recognized that hematomas or seromas are associated with an increase in the

TABLE 6
CLASSIFICATION OF WOUNDS* AND INCIDENCE OF INFECTION — 62 PATIENTS

Protocol III	*No. Pts.*	*No. Post-Op Wound Infections*	*Percent*
I Clean	19	2	10.5
II Clean contaminated	31	1	3.2
III Contaminated	5	0	0
IV Dirty	2	1	50

* National Research Council Study of 1964.

TABLE 7
TYPES OF OPERATION BY ANATOMIC SITE AND INCIDENCE OF INFECTION — PROTOCOL III, 57 PATIENTS

Site	*No. Pts.*	*Post-Op Infections*	*Percent*
Appendix	4	1*	25
Biliary tract	19	3*	15.8
Large intestine	17	2	11.8
Small intestine	2	0	0
Stomach	6	0	0
Spleen	2	0	0
Hernia	1	0	0

* Acute appendicitis and cholilithiasis — same operation.

TABLE 8
INFECTIONS BY ORGANISM

Procedure	*Organisms*
Protocol I	
Cholecystectomy	Staph aureus
Cholecystectomy + V&P	Enterococcus, enterobacter alpha-hemolytic strep, proteus mirabalis
Feeding gastrostomy	E. coli, bacteroides
Small bowel resection	Enterococcus, E. coli, enterobacter
Transverse colostomy	Staph epidermidis, pseudomonas aeruginosa
Protocol II	
Cholecystectomy	Staph aureus
Cholecystectomy	Not cultured
Protocol III	
Hartman I procedure	Bacteroides, E. coli, enterobacter, enterococcus
Cholecystectomy	Bacteroides fragilis
Colon resection	Bacteroides, E. coli, klebsiella, enterococcus
Cholecystectomy	Not cultured
Cholecystectomy & Appendectomy	Coagulase positive staph

incidence of infection. The ability of wounds to support the deactivation and killing of bacteria by phagocytic cells should initially resemble that of serum. There is a progressive loss of the ability of wound fluids to support this opsonization with progression of time.[7] If the bacterial inhibitory effect of wound serum is lost later, it may aid in the formation of an abscess. This observation may partially explain the late appearance of some wound infections since inhibition of bacterial growth may be lost progressively over a period of days.

In our study using closed subcutaneous suction system and antibiotic irrigation, we obtained an 8.8% infection rate. Using saline irrigation alone the wound infection rate was 3.5%. This study indicates that saline irrigation alone is more effective than irrigating with antibiotics. Significant was the fact that Bacteroides species was cultured from all three hospital infections cultured from Protocol III patients. This study indicates that the gentamicin, neomycin, polymyxin irrigation is not effective against Bacteroides species. We are hoping to do a follow-up study comparing this antibiotic irrigation with chloramphenicol in an attempt to provide adequate anerobic coverage. Clean cases, especially cholecystectomies, seemed to do worse with a closed catheter drainage system. Protocol III cholecystectomies had a wound infection rate of 17.6% compared to 6.7% Protocol II and 9.5% for the control group. However, when comparing only clean cholecystectomies without corresponding operations, the control group showed one out of 20 cholecystectomies for a 5% infection rate, while the suction plus saline group was 7.1% and the suction plus antibiotic group was 15.4%. Therefore, we cannot recommend the use of a closed catheter suction system for clean cases.

Summary

A prospective randomized study of 176 patients showed an overall 6.8% wound infection rate. The control group had an 8.1% wound infection rate. This compared to an overall infection rate of 8.8% with closed suction system plus antibiotic irrigation and a 3.5% in hospital infection rate for suction plus minimal saline irrigation. Overall, we feel that closed suction drainage of the subcutaneous space is superior to suture closure. Antibiotic irrigation of the subcutaneous space did not alter the infection rate.

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Ovarian Cancer

(Continued from page 16)

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Control of Massive Duodenal Ulcer Hemorrhage

MASSIVE BLEEDING is the major cause of mortality from operations for the complications of duodenal ulcer. Hypotension and the low flow state, particularly in those patients over 60 years of age, can result in fatal cardiovascular and septic complications. Reported mortality varies from 3% to 32% with most series showing an average mortality in the area of 12%.[1-3] Although there is a 5%-8% incidence of recurrent ulcer, vagotomy, pyloroplasty and ligation of the bleeder is the safer procedure and carries an average mortality of 6% to 10%. Gastric resection carries an average mortality of 20% in various series.[1, 3]

Stone *et al*,[2] in a recent report, have very encouraging statistics. In 137 patients, there was a mortality of 5.6% for vagotomy and pyloroplasty and 6.4% for gastric resection performed for control of bleeding. However, in those patients aged 70 or older, gastric resection had a mortality of 50% while vagotomy and pyloroplasty had no mortality. There were seven deaths in the gastric resection group and only one in the vagotomy group.

The incidence of re-bleeding averages 15%. The cause of re-bleeding is difficult to determine, particularly if the patient is not re-explored. The mortality of rebleeding, whether treated surgically or medically, is 50%.[3] The increasing use of fiberoptic endoscopy may allow accurate determination as to whether re-bleeding is due to technical failure, other bleeding sites or bleeding from other causes. Until proved otherwise, it is assumed that the original suture ligation has failed.

Published articles stress the method of suture ligation of the artery and Foster *et al*[3] have a good illustration of the technique. Points that deserve emphasis are (1) rubbing the ulcer bed before and after ligation to see if bleeding can be stimulated; (2) proximal and distal ligation of the bleeding vessel; (3) accurate placement of sutures; and (4) transfixion, even if bleeding cannot be provoked. Artist illustrations tend to make suture ligation of the bleeding point look simple. In the clinical setting, however, ligation of a massively and actively bleeding artery is anything but easy. The field tends to be obscured either by the surgeon's fingertip or by suction tips attempting to keep the field dry. Extensive blood loss may continue while ligation is being accomplished. The following addition to previously described techniques makes suture ligation much more precise and reduces blood loss:

1. The ulcer is exposed through an adequate gastroduodenotomy and active bleeding is controlled by finger pressure. If the ulcer is not bleeding, the base is wiped with a sponge to encourage bleeding.
2. A No. 3 or No. 4 Fogarty catheter is now threaded beneath the fingertip, one in each direction. The catheter can be passed beneath the fingertip even though sufficient pressure to control the bleeding is being constantly applied (Fig. 1, left).
3. The balloons are then inflated by the assistant as finger pressure is removed and the status of bleeding is assessed. The minimum balloon inflation to stop the bleeding is desirable (Fig. 1, right). The catheters can be inserted further than is shown in the drawing, if desired.
4. Moderate traction may be applied to both catheters to provide better exposure by "tenting" the artery and ulcer bed.
5. Sutures are now placed around the artery containing the Fogarty catheter. The direction and depth of the Fogarty allow the surgeon to judge that the suture is completely around the artery. The balloon is deflated and the catheter is removed as the suture is tightened (Fig. 2).

The authors describe an additional technique of control of massive ulcer hemorrhage. While it need not be routinely employed, it appears to be a valuable adjunct in different situations.

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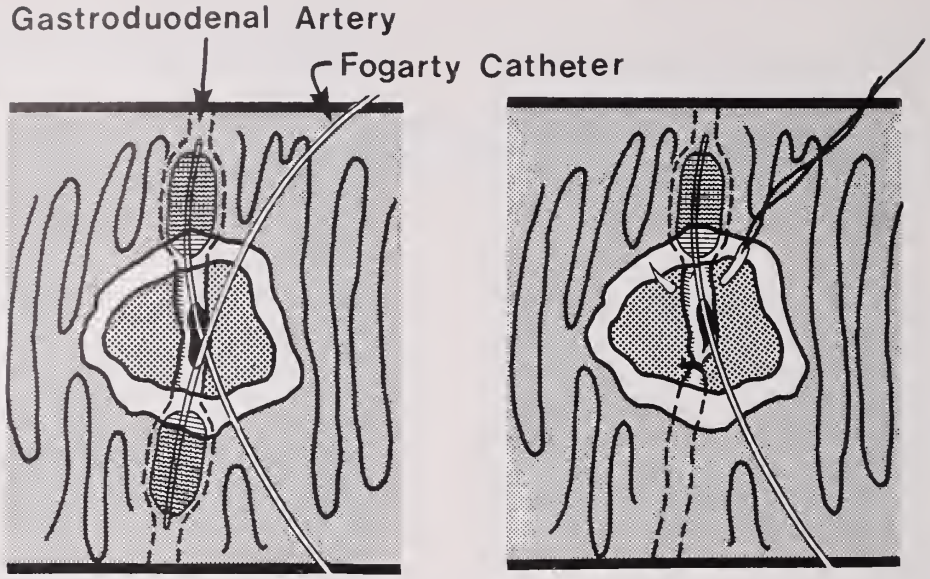

Fig. 1 (Left) Both Fogarty catheters in place and inflated. (Right) Distal artery has been ligated. Suture around proximal artery is tied as catheter is deflated and withdrawn.

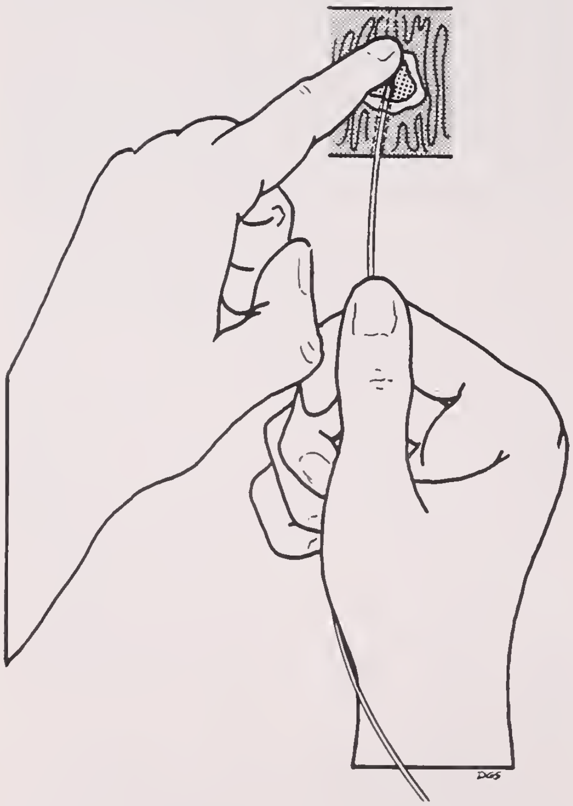

Fig. 2 Technique of insertion: catheter can be introduced beneath the fingertip even though sufficient pressure to control bleeding is being applied.

6. The surgeon may then place hemostatic material into the ulcer crater if he desires.
7. The operation is now completed by converting the gastroduodenotomy into a pyloroplasty and doing a vagotomy. A tube gastrostomy is probably desirable, but optional with the operating surgeon.

We have not used the above technique in ulcers that are not actively bleeding or in those that bleeding cannot be provoked with a sponge. In those instances, the artery can usually be encircled with a suture without aid from a Fogarty catheter. Although we have not encountered it, there are probably instances in which the bleeding artery cannot be catheterized with a Fogarty. Even then, if the artery cannot ultimately be catheterized successfully, the benefits to be gained make an initial trial extremely worthwhile. This technique has been used in four difficult cases with resultant rapid control and no apparent ill effects.

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Immunotherapy in Colorectal Cancer

COLORECTAL CANCER ranks second to skin cancer in overall incidence with approximately 100,000 new cases diagnosed each year. Almost 50,000 deaths per year are attributable to this disease making it second only to lung cancer as a cause of death from neoplasm.[1]

Chemotherapy and radiotherapy have not been proved to be effective. A more specific form of therapy for the treatment of colorectal carcinoma should be possible. Immunotherapy may provide the answer.[2]

Although the main body of experience in immunotherapy of human cancer has been obtained through the use of active nonspecific immunotherapy with immunostimulants such as BCG, C parvum and levamisole, there are other forms of immunotherapy under study. Active specific immunotherapy with a tumor cell vaccine is another approach that may produce antitumor immunity. Certainly, with the presence of tumor-associated antigens in human bowel cancer, active specific immunotherapy deserves investigation.[3]

This is a report of the results of a live vaccinia virus-augmented colon cancer vaccine as a treatment for patients with advanced carcinoma of the colon and rectum. A previous paper has outlined the use of this vaccine in a murine tumor system and also has described preliminary findings in a Phase I trial in humans.[4]

CLINICAL METHODS

Selection of Subjects

Patients selected had advanced Dukes' C and Dukes' D carcinoma of the colon and rectum and were refractory to previous therapeutic approaches. All patients involved in these trials gave informed consent by signing an authorization for the use of investigational therapy and showed a delayed hypersensitivity response to one of the common recall antigen skin tests to gauge immunocompetence. Moreover, all patients were prevaccinated with vaccinia vaccine.

Vaccine Preparation

Tumor tissue removed from the patient in the operating room was prepared as follows:

1. Those portions of the tumor that were not necrotic, fatty or hemorrhagic were finely minced by scalpels and placed in Eagle's MEM with 20% fetal bovine serum (FBS) plus penicillin and gentamycin.
2. The minced tissue was placed in Erlenmeyer flasks and stirred with 30 ml of 0.25% trypsin, 1% versene solution and stirred with a magnetic bar to effect a suspension of single cells.
3. Approximately 1 x 10^7 TCID_50/ml of vaccinia virus was used to infect 1 x 10^6/ml of tumor cells in suspension.
4. The virus tumor cell suspension was incubated for 72 hours at 37 C in Spinner's medium while both tumor cell lysis and virus titre were monitored.
5. The live vaccinia virus-augmented tumor cell suspension was spun at 20,000 rpm for 60 minutes at 0 C, the supernatant was removed and the pellet was homogenized and suspended in enough Eagle's MEM to effect a concentration of 1 x 10^6 vaccinia virus-augmented tumor cells/ml (6). The 1 ml aliquots were frozen at −70 C for use later.

Vaccine Administration

The vaccinia oncolysate vaccine was injected in 1 ml doses intradermally into the anterior thigh,

The therapy of carcinoma of the colon and rectum has become standard. Since adoption of that therapy, however, little progress has been made to further increase survival time of these patients. Specific active immunotherapy may provide the answer.

Previous investigators have shown that colorectal cancer elicits an immune response and may be susceptible to immunologic manipulation. The author's laboratory studies have shown that a live vaccinia virus-augmented (vaccinia oncolysate) tumor cell vaccine is safe and may be worthwhile in the surgical adjuvant treatment of colorectal cancer.

Dr. Wallack is Assistant Professor of Surgery and Head of the Section of Surgical Oncology, Washington University School of Medicine.

TABLE 1
A SUMMARY OF THE THREE PATIENTS WITH ADVANCED COLON CARCINOMA TREATED WITH THE VACCINIA ONCOLYSATES

Name	*Age/Sex*	*Tumor*	*Clinical Condition*	*Previous Therapy*	*Number of Injections*	*Results*	*Further Clinical Course (Months)*
JN	53 M	Colon	Dukes' D	Chemotherapy	15	Stable	19
EN	68 F	Colon	Dukes' C (undifferentiated)		10	Stable	17
WM	71 M	Colon	Dukes' D		16	Stable	17

upper arm and anterior thorax to stimulate regional lymph nodes. Oncolysate injections were given every two weeks for three months followed by 1 ml booster doses given every month until either recurrence or progression of previously stable disease occurred.

Results

The Phase I studies for colorectal cancer are now complete and show the vaccine to be safe, nontoxic and potentially effective. A total of nine tumor patients with advanced colorectal cancer have safely received the vaccinia oncolysate immunotherapy. The results were as follows:

1. 0/9 had adverse reactions.
2. 6/9 patients died.
3. 3/3 patients surviving had delayed hypersensitivity reactions at the vaccine injection site.
4. 3/3 patients with positive skin reactions to the vaccine had elevated vaccinia antibody titers.
5. 3/3 patients with positive skin reactions to the vaccine showed lack of progression of disease with immunotherapy.

A summary of the three patients with advanced colon cancer treated with the vaccinia oncolysate immunotherapy is shown in Table 1.

Discussion

Certain viruses can be used to increase the antigenicity of tumor cells. Lindenmann used a mouse-adapted strain of influenza A virus against Erhlich ascites cells growing in A_2G mice.[5] Intraperitoneal inoculations of influenza A virus into mice bearing six-day-old ascites tumors led to a viral necrosis of the tumor and survival of many animals. Then, Lindenmann prepared an influenza viral oncolysate from tumor cells infected with influenza virus for 48 to 72 hours and injected this vaccine intraperitoneally into A_2G mice at weekly intervals for four weeks. These injections permitted the majority of mice to resist challenge with both 1,000 and 100,000 tumor cells.[6] This effect was logically thought to be the result of neoantigens arising from the influenza virus-tumor interaction producing a postviral oncolytic immunity. In the past, viral oncolysate trials had been hampered in humans because most oncolytic viruses are harmful to man. However, vaccinia vaccine virus is the same virus used to inoculate humans against smallpox and, thus, was safe to use as a component of the viral oncolysate.

The live vaccinia virus-augmented tumor cell vaccine (vaccinia viral oncolysate) was first tested in an SV-40 transformed BALB/c male mouse peritoneal macrophage tumor system. These immunoprophylaxis experiments confirmed both the safety and the potential efficacy of the vaccine in an animal model.[4]

Because of the encouraging results in the mouse immunoprophylaxis experiments, Phase I human studies were undertaken in advanced colorectal cancer. Colorectal cancer was chosen because there is evidence that this type of cancer is antigenic and possibly immunogenic. Ackerman and Del Regato[7] have shown that colon lesions surrounded by an inflammatory infiltrate of plasma cells and lymphocytes may become large and spread locally but will not metastasize. On the other hand, lesions without the infiltrate metastasize frequently. Everson[8] detailed several documented cases of spontaneous regression of widespread metastatic carcinoma of the colon. There are several human in vitro studies that serve to document the presence of tumor-associated antigens in colorectal cancers.

In 1965, Gold[9] described a circulating glycoprotein antigen in the sera of patients with large bowel cancers. This antigen was called carcinoembryonic antigen (CEA) and was felt to be specific for large bowel cancer. However, it is clear now that CEA is a nonspecific tumor associ-

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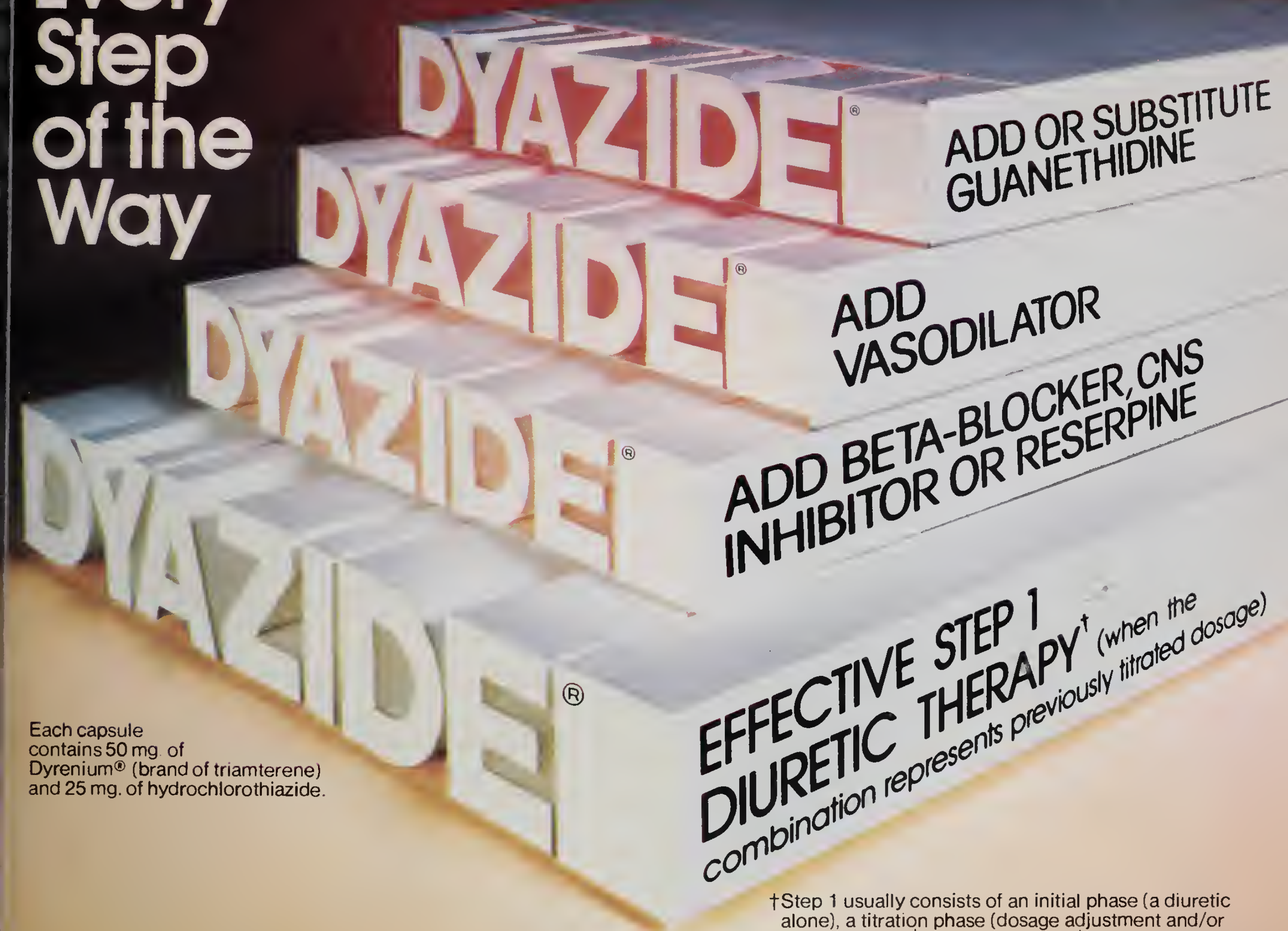
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Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K+ frequently: both can cause K+ retention and elevated serum K+ Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist Do periodic blood studies in cirrhotics with splenomegaly Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium Chloride deficit may occur as well as dilutional hyponatremia Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

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References: 1. Poulson GW *NY State J Med 79*: 193-195, Feb 1979 **2.** Hollister LE Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al*. New York, Oxford University Press, 1977 pp 134, 145. **3.** Domino EF Antipsychotics phenothiazines, thioxanthenes, butyrophenones, and rauwolfia alkaloids, chap. 25, in *Drill's Pharmacology in Medicine*, ed.4, edited by DiPalma JR New York, McGraw-Hill Book Company, 1971, p.476 **4.** Sovner R, DiMascio A Extrapyramidal syndromes and other neurological side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited by Lipton MA, DiMascio A, Killam KF New York Raven Press, 1978, p.1021 **5.** Donlon PT, Stenson RL *Dis Nerv Syst 37*. 629-635, Nov 1976.

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What better reason to choose Limbitrol for your patients with moderate depression and anxiety?

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Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)

Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

LIMBITROL
10-25
LIMBITROL

Efficacy without a phenothiazine

Please see summary of product information on following page.

Your guide to patient management... when you decide medication is needed

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Relief of moderate to severe depression associated with moderate to severe anxiety
Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving)

> *Usage in Pregnancy:* **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy
Limbitrol should not be taken during the nursing period. Not recommended in children under 12. In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects
Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling
Overdosage: Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment
Dosage: Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single h.s. dose may suffice for some patients. Lower dosages are recommended for the elderly
Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt) — bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

ROCHE

ROCHE PRODUCTS INC
Manati, Puerto Rico 00701

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

☐ Limbitrol 5-12.5 is recommended to minimize drowsiness and for elderly patients

☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

☐ An initial dosage of three tablets is recommended

☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary

☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness

☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom — insomnia

☐ Entire dosage h.s. to take maximum advantage of the sedative effect

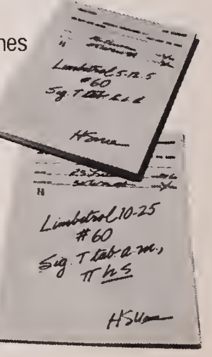
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



In moderate depression and anxiety

Limbitrol® Ⓘⓥ

Relief without a phenothiazine

ated antigen that may be seen in other advanced malignancies as well as colorectal cancer. Hellstrom *et al*[10] carried out definitive studies to demonstrate tumor specific antigems in patients with colorectal cancer. They used an assay which involved a short-term culture of human tumor cells with lymphocytes from tumor-bearing patients. Their results showed that lymphocytes from 60% to 90% of patients with colorectal cancer were cytotoxic for both the autochthonous and allogeneic colon cancer cells. There was no lymphocyte cytotoxicity against normal cells.

Certain clinical trials hint at the potential therapeutic value that stimulation of the host immune response holds for this type of cancer. Mavligit *et al*[11] have reported significant prolongation of disease-free interval and survival among 122 patients with Dukes' C carcinoma of the colon and rectum who received adjuvant chemo-immunotherapy with 5-FU an BCG postoperatively compared to historical controls. In a Phase I immunotherapy study with MER, Moertel *et al*[12] observed that three of 38 patients with pulmonary or hepatic metastatic carcinoma of the colon showed measurable partial remission. Moreover, evamisole, an antihelminthic agent with immunopotentiating qualities, is now beginning to show some activity as a surgical adjuvant for colorectal cancer.[13]

Although the main body of experience in immunotherapy of human cancer has been obtained through the use of active nonspecific immunotherapy, there are other forms of immunotherapy under study. Active specific immunotherapy using a tumor cell vaccine is another approach that may produce antitumor immunity. Certainly, with the presence of tumor antigens in human bowel cancer, active specific immunotherapy deserves investigation.

In my study, a live vaccinia virus-augmented colon carcinoma vaccine was used as a specific active immunotherapeutic agent. All patients involved in this study showed delayed hypersensitivity reactions to one or more common recall antigen skin test. Autochthonous vaccines were used when available. Otherwise, most patients received allogeneic vaccines prepared from laboratory tumor cell lines. Most treatments started three to four weeks after surgery. Moreover, use of the vaccinia virus for vaccine production enabled us to make vaccinia antibody determinations on cancer patients' sera as another nonspecific monitor of immune reactivity.

The human trials in advanced colon cancer have shown the vaccine to be safe (0/9 patients with untoward response) and possibly effective in stimulating the patient's tumor immune response (3/9 patients with evidence of lack of progression of tumor). All patients who seemed to respond to the vaccine had elevated vaccinia antibody titers and showed a delayed hypersensitivity skin reaction at the vaccine injection site.

In conclusion, one of the most important requirements for immunotherapy is that the immunogenicity of the patient's tumor cells be increased by increasing the potency of the tumor antigen on the tumor cell surface. It is my opinion that my the juxtaposition of a strong vaccinia virus antigen to a relatively weak tumor-specific antigen, one can increase the potency of the tumor-specific antigen and thereby induce a strong immune response that may be able to control tumor growth.

Because of the success of the Phase I trials, randomized prospective trials are now underway at Barnes and Jewish Hospital of the Washington University Medical School Complex to treat patients with Dukes' B and C carcinoma of the colon and rectum. Patients with Dukes' B cancer are randomized after surgery to receive either no treatment or immunotherapy with vaccinia oncolysate. Patients with Dukes' C cancer are randomized in the same way. To date, 60 patients have been placed in this trial and, hopefully, an answer will be forthcoming as to the biological activity of this therapy.

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President's Message

The relationship of the life-style pursuit of children contrasted to the achievement of their parents was brought into magnified focus by the advent of the recent holiday season with the children returning home for the "holiday break" and then with the families and friends coming together in family units.

Richard V. Bradley, M.D.

It seems certain that the majority of children follow in the discipline of their parents when compared to the general population. More children from an agricultural environment enter farming or related areas: lawyers' children tend to enter into the law; children from industrial families prefer commerce; doctors' children at least take a good look at medicine. This undoubtedly is the result of the incentive provided by available material assets, a respectable discipline, the comforts of familiar activity and lifestyle and, also, peer recognition of the promising younger family member. In an almost Darwinian sense, thus has been propagated or promulgated or perpetuated (a simile of semantics) the expertise of the various disciplines — farming, commerce, industry, public service, specialty services, religion, law, medicine, education and politics.

Give or take a generation, a quality athlete who attracts a mate oriented to athletics should stand a fair chance of having children well suited to athletic persuasions. Given adequate land to till, equipment to work that land and the ability to manage combined with a fair shake from the laws of nature, a farmer with a compatible spouse should be able to interest their children in the obvious advantages of a head start in agriculture. Children who observe their parents enjoying and finding reward in doing well what they do should have before them an almost subliminal recruitment program from the time of birth. This is the usual or, at least, the more common child-to-parent pursuit comparison.

More impressive and curiously humorous at times are the reasons given by members of the younger generation for not following in the disciplines of their parents. A lawyer finds that his four children go into medicine because their lawyer-parent was not at home enough for them to "really know" him. Physicians' children entering law for the same reason is notably prevalent. Children of all disciplines tend to offer their reasons for change in many areas. However, almost all include the absence of a parent with whom they would liked to have "shared more time."

Some children whose parents had that dread disease — work ethic — go so far as to reverse field away from commitment, achievement, competition and responsibility. A larger number of children, however, leave the parental discipline and actually enter a field more demanding and more difficult than that chosen by their parents.

The question as to why young people do these things naturally arises. Do they respond to peer pressure? It's possible that young people enjoy the admiration, respect and esteem of their peers. Envy is a form of peer pressure. Genetic advantages, such as being 7′4″ tall and well coordinated or having a full female figure and an excellent singing voice, speak for themselves in extracting a varying level of admiration, envy and achievement.

Do young people respond in weighted degree to the contributions of both parents? We are aware at times of the negative effort created by the absentee parent. What of the effect of the responsible parent at home? The responsible, at-home parent is literally in the front-line trenches. The closeness with young ones can be both precious and memorable, but it can also be wearing and full of miniature pitfalls. Sharing the closeness with loved ones and the realization of the fact that young eyes and young ears

(Continued on next page)

read and hear between the lines so well is occasionally awesome. To maintain the home, cook, provide first aid and act as referee, judge, jury, disciplinarian, advisor, friend and, at times, seemingly a foe is usually unheralded hard work. It is also a golden opportunity to provide an unrebutted opportunity to mold, shape, temper and influence the priorities and direction of the growing child. Abraham Lincoln spoke often of the gentle but persistent persuasion rendered to him by his mother who used the most primitive of materials to greatest advantage.

Young people can be affected by their school teachers, their favorite or unfavorite relatives, people who are famous or a namesake. They are also affected by the economic opportunity or restriction, by geographic placement or by the relationship of time to opportunity. Young people are also affected by something in their emotional make-up. Within each individual there is a type of inspiration computer. This may be part of the mechanism that permits a person to arrive close to where he or she desires to be as a result of individual ability, motivation and ambition in the overall selection of a life-style.

With all appropriate partial factors taken into account, the reasons given by young people for what and for why they are setting the direction of their life-style continues to demonstrate the valuable gift available to them within the family. It is pleasing to see that the parents of today have renewed awareness of the effect that their quiet, hopeful, loving and sometimes disciplinary attentions have upon their young ones within the closeness of the family unit.

ANNOUNCING: *MSMA Auxiliary's Third Annual*

AMA-ERF/MSMF BENEFIT AUCTION

During the 123rd Annual Session

Thursday, April 9, 1981 **Chase-Park Plaza Hotel**

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Here's your third opportunity to contribute to the AMA-ERF and MSMF (MSMA student loan fund) and have a great time doing it. The Auxiliary again asks that you donate worthwhile items such as antiques, paintings, quilts and other items you consider appropriate. Please register your contributions as soon as possible with Mrs. Campbell or Mrs. Martin (see addresses at left).

Plan Now to Donate and Participate!

MSMA Auxiliary

Auxiliary Fund Raising

The MSMAA helps raise money for the American Medical Association Education Research Foundation, which is the only fund-raising activity of the AMA Auxiliary, and for the MSMA's Missouri State Medical Foundation in our state. County auxiliaries also raise money for local scholarships and community health projects.

On the state level, our two major endeavors are AMA-ERF and MSMF. The third annual benefit auction at 6:30 PM on Thursday, April 9 during the state convention in St. Louis will benefit these two foundations. We need your help now in making donations to the auction and later in participating and in making a purchase. The evening is fun and entertaining as well as beneficial.

In these days of rising medical school costs, your gifts to AMA-ERF, which may be designated to the medical school of your choice, are greatly appreciated by the medical school deans. AMA-ERF has had to temporarily stop guaranteeing new loans to students, interns and residents under the loan guarantee fund. This situation may change in the future. When bank interest rates are so high, however, it is no bargain in medical school financing.

That is why the MSMA is fortunate in having its own student loan fund at low interest. It is available to Missouri students in AMA-accredited medical schools with interest at 4% per year from the date of the loan through graduation from medical school. The interest rate is increased during residency training and again after one year of medical practice.

Mrs. Donald A. Fakhoury
President

Donations to AMA-ERF or MSMF may be made at any time. We would appreciate it if you will make your contribution through your county auxiliary. Contributions such as memorials or in honor of a colleague have double benefits — a gift to medical education and a gift honoring a friend.

If you have items to donate to the auction, please notify your county auxiliary president; Mrs. A. J. Campbell, 1500 West 16th, Sedalia 65301; Mrs. Clyde V. Martin, 5531 E. Mission Dr., Shawnee Mission, KS 66208; or Miss Jean Duensing, MSMA/A Liaison in the MSMA office, 113 Madison, P. O. Box 1028, Jefferson City, MO 65102. Phone number is (314) 636-5151.

Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

123rd Annual Session

Chase-Park Plaza Hotel, St. Louis — April 9-12, 1981

Thursday, April 9

8:00 AM Registration of Delegates.

10:30 AM **House of Delegates, Opening Session.**

1:00 PM Reference Committee Meetings.

6:30 PM Missouri State Surgical Society Board of Directors. Cocktails and Dinner.

6:30 PM Missouri Women Physicians. Cocktails and Dinner.

6:30 PM MSMA Auxiliary Auction.

Friday, April 10

7:00 AM District Breakfasts.

7:00 AM Fun Run.

7:15-11:30 AM Complimentary Coffee and Rolls.

8:00 AM Registration.

8:30 AM Missouri University Board of Directors. Breakfast and Meeting.

9:00-10:30 AM **General Session.**

10:30-11:00 AM Intermission to view exhibits.

11:00 AM-12:00 NOON *"Mucous Membrane Lesions: Diagnosis and Therapy."*
Speaker: Roy S. Rogers, III, M.D., Staff Dermatology, Associate Professor, Mayo School of Medicine, Rochester, Minn.
Sponsored by the Missouri Dermatological Society.

11:00 AM-12:30 PM *Scientific Session*. Sponsored by the Missouri State Surgical Society.

11:00 AM-12:30 PM *"Tuberculosis: United States and Missouri."*
Speaker: Laurence S. Farer, M.D., Director of Tuberculosis Control Division, Communicable Disease Center, Atlanta, Ga.
Annual Charles A. Brasher, M.D. Lectureship.
Sponsored by the Missouri Thoracic Society.

11:00 AM-12:30 PM *Scientific Session*. Sponsored by the Missouri Orthopaedic Association.

11:00 AM-12:30 PM *Scientific Session*. Sponsored by the Missouri Society of Internal Medicine.

12:30-2:00 PM Missouri University Medical Alumni Luncheon.

12:30 PM Missouri Thoracic Society Luncheon.

1:00-5:00 PM *"Short Audiovisual Films on Movement Disorders."* Discussion after each film.
Moderator: Jo-Ellyn M. Ryall, M.D., St. Louis.
Sponsored by the Missouri Psychiatric Association and Sandoz Drug Company.

1:00-4:00 PM Missouri Chapter, American College of Emergency Physicians. Business meeting, general discussion and election of officers.

2:00-3:30 PM *"The Importance of Participating in Organized Medicine. How It Happened in Little Rock."*
Speaker: Albert S. Koenig, M.D., Ft. Smith, Ark.
Sponsored by the Missouri Society of Pathologists.

2:00-3:30 PM *Scientific Session*. Sponsored by the Missouri Society of Internal Medicine.

2:00-3:30 PM *Scientific Session*. Sponsored by the American Cancer Society, Missouri Division, Inc.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri State Surgical Society.
2:00-
4:00 PM *Scientific Session*. Sponsored by the Missouri Dermatological Society.
  2:00 *"Recent Advances in Therapy."*
    Speaker: Roy S. Rogers, III, M.D., Staff Dermatology, Associate Professor, Mayo School of Medicine, Rochester, Minn.
  2:30 *"Immune Complex Diseases."*
    Speaker: Russell P. Hall, M.D., Research Associate, National Institute of Health, Bethesda, Maryland.
  3:15 *"How I Treat Common Dermatosis."* Clinical Panel.
3:00 PM *Discuss the Issues* with your AMA Delegates.
3:00-
4:00 PM Missouri State Medical Foundation Annual Meeting.
3:30 PM Intermission to view exhibits.
4:00 PM Missouri Dermatological Society Board Meeting.
4:00 PM **House of Delegates, Second Session.**
5:00-
6:30 PM Reception Honoring Incoming MSMA Auxiliary President.
6:00 PM Reference Committee Meetings.
6:30 PM Missouri Psychiatric Association. Cocktails and Dinner.
  "The Relationship of Government to the Practice of Psychiatry."
  Speaker: Robert Campbell, Jr., M.D., Vice-President, American Psychiatric Association, Medical Director of Gracie Square Hospital, New York, N.Y.
6:30 PM Missouri State Surgical Society. Cocktails and Dinner.
6:30 PM Missouri Society of Pathologists. Cocktails and Dinner.
7:00 PM Missouri Dermatological Society. Cocktails and Dinner.

Saturday, April 11

7:30 AM MSMA Auxiliary Public Affairs Breakfast.
7:30 AM Missouri Society of Anesthesiologists Breakfast.
7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast.
8:00 AM Registration.
8:00-
11:00 AM Complimentary Coffee and Rolls.
8:30-
10:45 AM Scientific Session sponsored by the Missouri Society of Anesthesiologists.
  8:30 *"Anesthesia for the Patient with Ischemic Heart Disease Under Non-Cardiac Surgery."*
    Speaker: John Tinker, M.D., Mayo Clinic, Rochester, Minn.
  9:15 *"Newer Aspects of CPR."*
    Speaker: Arnold Sladen, M.D., University of Pittsburgh, Pittsburgh, Pa.
  10:00 *"Endorphins."*
    Speaker: Harold Carron, M.D., University of Virginia, Charlottesville, Va.
9:00-
10:30 AM *"Understanding Radial Karatotomy, Part I and Part II."*
  Speaker: Ronald A. Schachar, MD., Dennison, Tex.
  Scientific Session sponsored by the Missouri Ophthalmological Society, Inc.
9:00-
10:30 AM *Scientific Session*.
  Speaker: Eugene N. Myers, M.D., Professor and Chairman, Department of Otolaryngology, University of Pittsburgh Eye and Ear Hospital, Pittsburgh, Pa.
  Sponsored by the Missouri Ear, Nose and Throat Association, Inc.
9:00-
10:30 AM *Scientific Session*. Sponsored by the American Heart Association, Missouri Affiliate, Inc.
9:00-
11:00 AM *Scientific Session*. Sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics.
9:30 AM-
12:30 PM *Scientific Session*. Sponsored by Physical Medicine and Rehabilitation.
  9:30 *"Massage and Management of Edema and Other Conditions."*
    Speaker: Keith Stillwell, M.D., Professor of Rehabilitation Medicine, Mayo Clinic, Rochester, Minn.
  10:30 *"Brief Clinical Presentations."*

10:30 AM Intermission to view exhibits.

10:30 AM-
5:00 PM Missouri Ophthalmological Society, Inc. All Day Meeting.

11:00 AM-
12:30 PM *Scientific Session*. Sponsored by the Missouri Academy of Family Physicians.

12:00 NOON Missouri State Neurological Society Board Meeting.

12:00 NOON Physical Medicine and Rehabilitation. Luncheon, Business and Board Meeting.

12:00 NOON-
2:00 PM Missouri Society of Anesthesiologists. Luncheon and Business Meeting.

12:00 NOON Missouri Ophthalmological Society, Inc. Luncheon.

12:30 PM Fifty-Year Club Luncheon.

1:00-
4:00 PM "*Selected Aspects of Chest Radiology*." Sponsored by the Missouri Radiological Society.

- 1:00 "*Diagnosis of Pulmonary Embolism by Ventilation Profusion Cyntography*."
  Speaker: Dan R. Biello, M.D., Associate Professor, Washington University, St. Louis.
- 1:40 Discussion
- 1:45 "*Selected Applications of Computed Tomography of the Chest*."
  Speaker: Stuart Sagel, M.D., Professor of Radiology, Washington University, St. Louis.
- 2:25 Discussion.
- 2:30 Break.
- 2:45 "*Current Status of Radiation Treatment of Bronchogenic Carcinoma*."
  Speaker: Carlos Perez, M.D., Washington University, St. Louis.
- 3:25 Discussion.

2:00-
4:15 PM *Scientific Session*. Sponsored by the Missouri Society of Anesthesiologists.

- 2:00 "*Obstetrical Anesthesia*."
  Speaker: Sam Hughes, M.D., University of California, San Francisco, Calif.
- 2:45 "*A New Inhalation Anesthesia*" — "*Forane*."
  Speaker: Harry Cohen, M.D., Director of Obstetrical Anesthesia, University of Miami, Miami, Fla.
- 3:30-
  4:15 *Questions and Answers*.
  Panelists: Sam Hughes, M.D.
  Harry Cohen, M.D.
  William Ott, M.D.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri State Surgical Society, followed by business meeting.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri Academy of Family Physicians.

2:00-
4:00 PM *Scientific Session*. Sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics.

2:00-
4:00 PM MOMEDICAL Shareholders Meeting.

4:00-
4:30 PM MOMEDICAL Board of Directors Meeting.

5:00-
6:30 PM Missouri University Alumni Reception.

5:00-
6:30 PM Washington University Alumni Reception.

5:00-
6:30 PM St. Louis University Alumni Reception.

6:30 PM MSMA Social Hour.

7:15 PM MSMA Annual Banquet.

Sunday, April 12

7:30 AM **House of Delegates Breakfast Meeting.**

MSMA Members Receive Physician's Recognition Award

One hundred and three MSMA members qualified for the MSMA-AMA Physician's Recognition Award during October, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Bernardo G. Aleksander, St. Louis
Jerome M. Aronberg, Clayton
Lysle M. Bach, Hannibal
Kenneth Y. Baik, Marshall
Dilip Banerjee, Washington
Issa Baroudi, St. Louis
Eugene C. Beatty, Kansas City
Stanley C. Becker, St. Louis
John M. Bedwinek, St. Louis
William F. Benson, Kansas City
James E. Bickley, Kansas City
John L. Bircher, St. Louis
Ross R. Black, Kansas City
James C. Bobrow, St. Louis
Stephen F. Bowen, St. Louis
Harry R. Brady, St. Louis
Raymond J. Caffrey, Independence
Robert F. Cerza, St. Joseph
David W. Chapman, Independence
Harry B. Cohen, Columbia
Juan C. Corvalan, St. Louis
Thomas V. Cradock, St. Louis
Oral B. Crawford, Springfield
Enrique Cubillo, St. Louis
Oblendo A. Cuento, Kirkwood
Edward W. Czebrinski, St. Louis
Wilbur D. Dabbs, Neosho
Dale E. Darnell, Kansas City
Kapal D. Datta, St. Louis
James W. Debnam, St. Louis
Tony M. Deeths, Creve Coeur
James F. Fairchild, Perryville
John F. Ferguson, Springfield
Murray E. Finn, St. Louis
Jerry E. Foote, Columbia
Royal S. Garner, Jefferson City
Louis E. Gehm, Butler
Frederick W. Hahn, Kansas City
Hugh A. Hanna, Warrensburg
William E. Henrickson, Poplar Bluff
Barry A. Hiatt, Clayton
Blaine Z. Hibbard, Kansas City
Donald B. Holley, Camdenton
John W. Irvine, Raytown
Michael K. Johnson, Bridgeton
Nicola Y. Katf, North Kansas City
George Katsantonis, St. Louis
James C. Kelly, Springfield
Forrest H. Kendall, Kansas City
Vellore R. Kirubakaran, St. Joseph
George M. Klingner, Springfield
Ira J. Kodner, St. Louis
Robert C. Kolodny, St. Louis
John C. Listerman, Springfield
Charles M. Luetje, Kansas City
Robert R. Lyle, Versailles
John J. Mahoney, Kansas City
Levy M. Maravilla, St. Louis
Hal E. Marshall, Kansas City
David R. Marty, Jefferson City
Bruce L. McClennan, Clayton
James J. McMillen, St. Joseph
William J. Medlicott, Kansas City
Elsie E. Flint Meyers, Clayton
Chung C. Nahm, St. Louis
Leo T. Neu, Springfield
Richard T. O'Kell, Kansas City
Leopoldo M. Ortiguero, St. Louis
Judith C. Patterson, Florissant
John E. Pawsat, Kansas City
Carlos A. Perez, St. Louis
Robert Potashnick, St. Louis
Donald A. Potts, Independence
Vemireddi S. Prasad, Kansas City
Stephen H. Radinsky, Creve Coeur
Philip D. Reister, Kansas City
Joseph M. Ribaudo, St. Louis
Dean R. Rising, Springfield
Paul A. Roberts, Sweet Springs
Hunter B. Rogers, St. Louis
John F. Rose, Chillicothe
Marvin Rosecan, St. Louis
James G. Ruggles, Chesterfield
David L. Ryan, Trenton
Verne L. Schlaser, Galena
Henry G. Schwartz, St. Louis
Herman Shyken, Clayton
Robert R. Stuber, St. Joseph
Dan T. Sullivan, Springfield
Thomas F. Summers, St. Louis
Ernest Tillman, St. Louis
James D. True, Kansas City
Angelo C. Tuano, Barnhart
Nanda K. Vemireddi, Kansas City
Richard A. Waldman, Kansas City
George C. Wee, Ellisville
Edward C. Weiford, Kansas City
Thomas J. Weiler, St. Louis
Jerry C. Wible, Branson
George P. Wilson, Columbia
Esther B. Winkelman, Kansas City
Earl J. Wipfler, St. Charles
George H. Zografakis, St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

Jan. 29	CT of Orbital Lesions (Truman Medical Center)
Jan. 31- Feb. 7	Medical Seminar at Sea — K.C. Southwest Clinical Society (Caribbean Cruise Leaving Miami)
Feb. 13-14	The Long Weekend: Oncology, Immunology and Infectious Diseases (Crown Center Hotel)
Feb. 22- Mar. 1	Traveling Medical Education Course — K.C. Southwest Clinical Society (Nassau, The Bahamas)
Feb. 26	Neurological Problems in Pediatrics Demonstrated by CT (Truman Medical Center)
Mar. 26	Infratentorial Lesions — CT of the Post Fossa Masses (Truman Medical Center)
Mar. 26-28	Perspectives in Medicine — 1981 (Hyatt Regency Hotel)
April 24-25	The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
April 30	C.V.A. — Anatomical Correlation by CAT (Truman Medical Center)
May 8-9	Geriatrics Seminar (Alameda Plaza Hotel)
May 14-15	Surgical Problems: The Old and the New (Hyatt Regency Hotel)
May 28	CT Evaluation of Supratentorial Lesion (Truman Medical Center)
June 5-6	Symposium on Physical Fitness (Crown Center Hotel)
June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)

DePaul Community Health Center
12303 DePaul Drive, Bridgeton 63044
(314) 344-6262
***Contact:* Medical Director's Office**

Mar. 4	Neuropharmacology Program (DePaul Division Auditorium)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Feb. 4	Infectious Diseases
April 1	CT Scanning
June 3	Lung Disease
Aug. 5	Multisystem Trauma

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Office of CME**

Feb. 26-27	Clinical Topics in Pulmonary Medicine
Mar 2- May 18	Internal Medicine Review (Monday Evenings — Jewish Hospital)
Mar. 12-13	Gland Rounds (What's New in Endocrinology)
Mar. 16-17	Eighth Annual Symposium on Obstetrics & Gynecology
Mar. 19-20	Rheumatology for the Practicing Physician
April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Caribbean Cruise)
May 8-9	Alumni Reunion
May 13	Burns: The Early Days
May 21-22	Postgraduate Course in Otolaryngology

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Feb. 9	City-Wide Radiology Conference
Mar. 9	City-Wide Radiology Conference — Interventional Radiology
April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
May 11	City-Wide Radiology Conference — Digital Imaging and Computers Radiology
June 13	Leroy Sante Lecture

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Feb. 15-19	CAPD Conference (Crown Center Hotel, Kansas City)
Mar. 3	Preceptors Day
Mar. 4-5	4th Annual Family Practice Update Session
Mar. 19-20	Spring Surgery Conference
Mar. 30-31	27th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 8-9	Primary Pediatrics for the Primary Physician
May 8-10	4th Annual Missouri Cardiovascular Conference (Tan-Tar-A, Osage Beach)

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
***Contact:* Norman L. Martin, M.D., President**

Feb. 11	GI Radiology (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (Kansas University Medical Center)
Mar. 11	Nuclear Medicine (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (St. Luke's Hospital)
April 8	Bone and Joint (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (Kansas University Medical Center)
May 20	Pediatric Urology (With Greater K.C. Urological Society, Granada Royale Hotel)

(Continued in next column)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

Correction, Please!

Dr. James O. Alyea, Columbia, has notified Missouri Medicine that an error appeared in his manuscript, "Management of Cancer Pain," which was published in the November, 1980 issue. In Table 2 on page 664, the comparative cost for a 30-day supply of methadone should have been $7.50 instead of $2.50.

Doctor:

Will YOU Be There?

Missouri State Medical Association

123rd ANNUAL SESSION

April 9-12, 1981

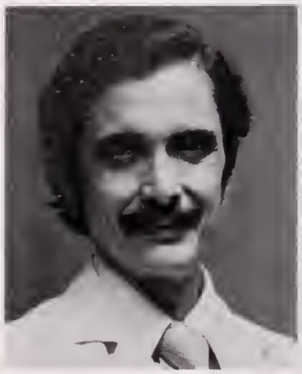
Chase-Park Plaza Hotel St. Louis

Make Your Plans and Reservations NOW!

NEWS
From the Medical Schools

ST. LOUIS UNIVERSITY

Fernando deCastro, M.D., has been appointed to the 1981 National Advisory Committee of the White House Conference for Children and Youth by Patricia Harris, Secretary of the Department of Health and Human Services. Dr. deCastro is professor of pediatrics and associate professor of community medicine. He is also director of ambulatory care services at Cardinal Glennon Memorial for Children.


Dr. deCastro

The purpose of the conference is to inform the American people and their elected representatives of the circumstances and prospects of the nation's children. The 35 members of the committee include representatives from public agencies and private nonprofit organizations, as well as from low-income families and minority groups.

Clement Grebel, M.D., associate clinical professor of internal medicine, is now the medical director of St. Mary on the Mount Hospital/Rehabilitation Center, 9101 S. Broadway, St. Louis.

Dr. Grebel is a fellow in the American College of Physicians and past-president of the Missouri Society of Internal Medicine. He is the first recipient of the Annual Distinguished Internist Award presented by the Missouri Society of Internal Medicine.

Known as Mount St. Rose Hospital since 1901, St. Mary on the Mount is owned and operated by the Sisters of St. Mary. It is a 131-bed rehabilitation facility that includes a 39,000 square foot addition that has the space, equipment and environment to accommodate the therapy of patients needing rehabilitation.

Michael Green, Ph.D., assistant professor of microbiology, has been awarded a three-year, $207,541 grant to study protein processing. Sponsored by the National Institute of General Medical Sciences, the work will seek to explain how newly synthesized antibodies are processed to their final form.

Before coming to St. Louis University School of Medicine in 1975, Dr. Green did his postdoctoral work at Roche Institute of Molecular Biology in Nutley, N.J. He received his Ph.D. degree in molecular biology at the University of Wisconsin in 1968.

Vallee Willman, M.D., chairman of the Department of Surgery, wrote an article on "The Challenge of Cost Containment" in the November issue of the *American College of Surgeons Bulletin*.

Dr. William proposed several strategies to reduce costs about 10%, including regionalization of severe trauma and other tertiary services. He also pointed out that although people tend to focus on physicians' fees, "people perhaps fail to recognize that only 10% to 15% of health-care costs are attributable to physicians' fees."

Robert Dorner, Ph.D., associate professor of biochemistry and associate professor of internal medicine, has received a $10,000 grant to continue his studies on juvenile rheumatoid arthritis. The funds came from the St. Louis Variety Club.

The presentation was made at the 14th annual St. Louis Variety Club awards luncheon during which proceeds of the 1980 telethon were distributed among area children's health agencies.

WASHINGTON UNIVERSITY

The Andrew B. Jones and Gretchen P. Jones Professorship in Neurology has been established at the Washington University School of Medicine. The chair has been endowed by Andrew B. Jones, M.D., a retired Washington University professor, and his wife, Gretchen P. Jones.

The chair will be occupied by *William Landau*, M.D., co-head of the Department of Neurology and Neurological Surgery and neurologist-in-chief at Barnes Hospital.

The endowment for the chair was initiated in 1976 when Dr. Jones and his wife donated land in St. Louis County valued at $243,276, followed by a $135,000 gift and, more recently, a pledge of 36 acres of Tennessee property valued at over $300,000. Dr. Landau said, "Dr. Jones' generosity in behalf of the teaching and practice of clinical neurology is totally consistent with his previous commitment and dedication to Washington University. It is gratifying to have a member of our own academic community possessing the vision and foresight to further the cause of teaching and research."

Dr. Jones and his wife were honored at a special reception held for them at the Whittemore House on the campus of Washington University on December 9.

UNIVERSITY OF MISSOURI-KANSAS CITY

Dr. William H. Danforth, chancellor of Washington University in St. Louis, will be the 1981 Dorothy Lee Ross Lecturer at the School of Medicine's graduation ceremonies in May.

Subscribers to Kansas City's cable television system can watch health and medical programs on Network for Health, a service provided by the School of Medicine. American Cablevision, operators of the cable system, recently inaugurated a channel devoted exclusively to health and medical programs. The Office of Educational Resources at the School of Medicine coordinates the efforts of local health organizations to provide programming for the channel.

The School of Medicine sponsored a one-day workshop on geriatric education on December 29. *Dr. Richardson K. Noback*, professor of medicine and head, Section of Geriatrics, coordinated the event with *Dr. Stanley R. Ingman*, associate professor of family and community medicine at University of Missouri-Columbia. *Dr. Theodore Reiff*, professor of medicine and director of the Institute of Gerontology and Geriatric Medicine at the University of North Dakota, was the keynote speaker for the workshop. Dr. Reiff also met with several senior docents and faculty members at the School of Medicine and Truman Medical Center on December 30.

Nine UMKC medical students were among the 25 winners of special talent scholarships awarded by the University. The scholarship categories were creative or performing arts talent, excellence in subject discipline, leadership ability and outstanding achievement in a nonacademic area. The medical students receiving scholarships are *Nancy Eisle, Floyd Elliot, Warret Kennard, Joy McElroy, Karen Myers, Michelle Perez, Thomas Reardon, Christine Sullivan* and *Marcus Wells*.

UNIVERSITY OF MISSOURI-COLUMBIA

A Distinguished Professorship in Internal Medicine honoring 1960 medical school graduate *Dr. Loren E. Broaddus* of Springfield has been established through a memorial trust set up by *Marvin Millsap* and his late wife, *Rose Ann Millsap*.

Announcement of the professorship was made by medical school *Dean Charles C. Lobeck* during M.D. Day activities at UMC. He said an appointment to the post will be made during this academic year.

Dr. Broaddus, an internist, has been the family doctor for Mr. and Mrs. Millsap, Springfield residents. At 35, he was the youngest physician ever selected as chief of staff at Cox Medical Center in Springfield. A native of Sedalia, he was graduated from Drury College in Springfield before entering the UMC School of Medicine.

Mr. Millsap, a retired businessman, also is a UMC graduate. He received a master's degree in education in 1928.

Medical alumni from 12 states attended M.D. Day events at the Health Sciences Center on November 7-8. A scientific program featured the use of computers in modern medicine — in the laboratories, in diagnosis of illness and in interpretation of electrocardiograms and X-rays.

A completely renovated 43-bed neonatal nursery designed primarily for "high-risk" infants has been reopened at the University of Missouri-Columbia Health Sciences Center.

The $1,348,000 project includes 31 beds for three levels of intensive care and 12 bassinets for well-babies born at University Hospital.

The hospital is a major referral center in Missouri for premature infants and those with respiratory or heart problems, or other serious ailments. "There was a tremendous need for enlarging and remodeling the unit," said Dr. Giulio Barbero, chairman of the child health department.

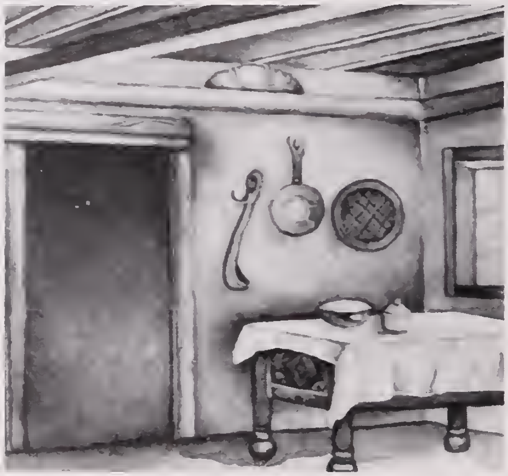
The State Legislature appropriated $1.1 million and the University added another $285,000 for the remodeling and installation of special lifesaving equipment.

The intensive care units have individual modules equipped with a suction vacuum, oxygen and compressed air for respirators. Each unit has independent electric circuitry. Infants are assigned to one of three intensive care levels depending on the severity of their illness.

An air filtering system, humidity control and an infection isolation room have been added to the new facility.

Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

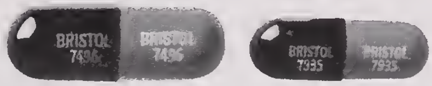
Today's Tradition: Tegopen® (cloxacillin sodium)

for the treatment*of known or suspected staphylococcal infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]



Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen® (cloxacillin sodium) Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®

(cloxacillin sodium)

Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information consult Official Package Circular

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens If an allergic reaction occurs the drug should be discontinued and the patient treated with the usual agents, e g pressor amines, antihistamines, and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function including renal, hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS:

Gastrointestinal disturbances such as nausea, epigastric discomfort flatulence, and loose stools, have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered Eosinophilia with or without overt allergic manifestations, has been noted in some patients during therapy

USUAL DOSAGE:

Adults 250 mg q 6h

Children 50 mg/Kg/day in equally divided doses q 6h Children weighing more than 20 Kg should be given the adult dose Administer on empty stomach for maximum absorption.

N B INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

SUPPLIED:

Capsules—250 mg in bottles of 100 500 mg. in bottles of 100
Oral Solution—125 mg/5 ml in 100 ml and 200 ml. bottles

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Bristol Laboratories
Division of Bristol-Myers Company
Syracuse, New York 13201

New Members

Joyce A. Adams, M.D., Wayne Miner Health Center, 825 Euclid, Kansas City 64124, has become a member of Jackson County Medical Society. Dr. Adams is a native of Weir, Kan., received her preliminary education at the University of Kansas and her M.D. degree at the University of Kansas in 1977. She specializes in pediatrics.

Patricia R. Brown, M.D., 600 E. Broadway, Columbia 65201, has become a member of Boone County Medical Society. Dr. Brown is a native of Batesville, Ark., received her preliminary education at State College of Arkansas and her M.D. degree at the University of Arkansas in 1976. She specializes in pediatrics.

Robert D. Fry, M.D., 456 N. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Fry is a native of Beaver, Okla., received his preliminary education at Oklahoma City University and his M.D. degree at Washington University in 1972. He specializes in surgery.

Johnny S. Gaw Co Hu, M.D., Dept. of Cardiology, St. Louis University Hospital, 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Gaw Co Hu is a native of Manila, Philippines, received his preliminary education at the University of the Philippines and his M.D. degree at the University of the Philippines in 1973. He specializes in internal medicine.

Adolphus C. Favors, Jr., M.D., Blue V Unit, University of Missouri-Kansas City School of Medicine, 2411 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Favors is a native of Kansas City, Kan., received his preliminary education at Texas Southern University and his M.D. degree at the University of Washington in 1973. He specializes in oncology.

James A. Glenski, M.D., Children's Mercy Hospital, 24th at Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Glenski is a native of St. Joseph, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in pediatrics.

(Continued on page 41)

In G.I. therapy

Adjunctive

Librax®

Each capsule contains
5 mg chlordiazepoxide HCl
and 2.5 mg clidinium Br

antianxiety/antisecretory/antispasmodic

for adjunctive therapy of duodenal ulcer*
and irritable bowel syndrome*

Librax®

Please consult complete prescribing information, a summary of which follows:

* **Indications:** Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

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Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No 2 and No. 3 is one or two tablets every four hours as required The usual adult dose for Empirin with Codeine No 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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Stanley P. Hayes, M.D., 1211 S. Glenstone, Springfield 65804, has become a member of Greene County Medical Society. Dr. Hayes is a native of Springfield, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1975. He specializes in internal medicine.

Randall L. Heller, Jr., M.D., 1034 S. Brentwood Blvd., Suite 946, St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Heller is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Texas in 1976. He specializes in obstetrics and gynecology.

Merle B. Herriford, M.D., 2715 N. Union, St. Louis 63113, has become a member of St. Louis Metropolitan Medical Society. Dr. Herriford is a native of Kansas City, received his preliminary education at the University of Nebraska and his M.D. degree at Howard University in 1942. He specializes in urology.

Darwin C. Jackson, M.D., 100 N. Euclid Ave., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Jackson is a native of Louisville, Ky., received his preliminary education at Ohio State University and his M.D. degree at Washington University in 1976. He specializes in obstetrics and gynecology.

Dennis O. Keesal, M.D., St. Joseph Hospital, 3rd and 1st Streets, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Keesal is a native of Philadelphia, Pa., received his preliminary education at Temple University and his M.D. degree at Temple University in 1970. He specializes in emergency medicine.

Hieu H. Le, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Le is a native of South Vietnam, received his preliminary education at Saigon University and his M.D. degree at Saigon University in 1970. He specializes in anesthesiology.

Ruben E. Lopez, M.D., 216 S. 4th, Hayti 63851, has become a member of Pemiscot County Medical Society. Dr. Lopez is a native of Cuba, received his preliminary education at Maristas College and his M.D. degree at the University of Habana in 1960. He specializes in general practice.

James D. McEleney, M.D., 615 S. New Ballas, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. McEleney is a native of New Haven, Conn., received his preliminary education at Boston College and his M.D. degree at St. Louis University in 1979. He specializes in emergency medicine.

Juliet S. Melzer, M.D., 4960 Audubon Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Melzer is a native of Buffalo, N.Y., received her preliminary education at Northwestern University and her M.D. degree at Northwestern University in 1974. She specializes in general surgery.

Abdul M. Memon, M.D., 213 E. Booneslick Rd., Warrenton 63383, has become a member of St. Charles-Lincoln County Medical Society. Dr. Memon is a native of India, received his preliminary education at Government College and his M.D. degree at Liaquat Medical College in 1971. He specializes in internal medicine.

Quat Ton Ngo, M.D., Johnson County Memorial Hospital, Warrensburg 64093, has become a member of Johnson County Medical Society. Dr. Ngo is a native of Vietnam, received his preliminary education at Saigon College and his M.D. degree at Saigon Medical School in 1963. He specializes in family practice.

Devineni V. Rao, M.D., 4511 Forest Park Blvd., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Rao is a native of India, received his preliminary education at Osmania University and his M.D. degree at Osmania University in 1973. He specializes in radiology.

James M. Schweitzer, M.D., 3009 N. Ballas, St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Schweitzer is a native of St. Louis, received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1975. He specializes in oncology.

Howard J. Swanson, M.D., 333 Research Medical Building, 6400 Prospect, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Swanson is a native of McPherson, Kan., received his preliminary education at Bethany College and his M.D. degree at Kansas University in 1973. He specializes in rheumatology.

Melvin O. Walker, Jr., M.D., National Avenue Medical Building, 1900 S. National, Springfield 65804, has become a member of Greene County Medical Society. Dr. Walker is a native of Montezuma, Iowa, received his preliminary education at the University of Northern Iowa and his M.D. degree at the University of Iowa in 1970. He specializes in internal medicine.

Thomas E. Welsh, III, M.D., 215 S. Third, Clarksville 63336, has become a member of Pike County Medical Society. Dr. Welsh is a native of Chicago, Ill., received his preliminary education at Emory University and his M.D. degree at the Medical College of Georgia in 1977. He specializes in internal medicine.

New Student Members

University of Missouri-Columbia

Bejan J. Daneshfar
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Howard S. Lite
Rebecca R. Lueckenhoff
Bradley B. McElroy
Charles Morrow
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University of Missouri-Kansas City

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St. Louis University

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Philip Cannon
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Patricia A. Fox
Michael A. Freiberger
Howard P. Fritz
James N. Grace
David L. Griffith
Cary Goepfert
Arlen D. Hanssen
Wesley Hashimoto
Edward H. Hausladen
Steven M. Jaeger
James G. Julian
John P. Kinsella
Daniel G. Kohm
Lorraine Lee
Robert H. Lee
Jesse H. Marymont, III
Mary Anne Hoffman Marymount
Marilyn Maxwell
William F. McGann, Jr.
Mark Molloy
Kenneth G. Murphy
Joseph E. Noonan, Jr.
Charles E. O'Neill
David A. Orsinelli
Richard A. Page
Howard M. Place
Larry D. Reed
Michael P. Ridge
David Robson
Douglas E. Romer
Joann M. Sanders
Lester Sauvage
John M. Schneider
Kenneth C. Schowengerdt, Jr.
Karl W. Schultz
William J. Sciortino
Kenneth B. Smith
Thomas Spiro
James L. Stewart
Kerry K. Swindle
Henry D. Walden
David J. Westrich
William L. White
Karen K. Wies
John T. Witte

Washington University

Kimberley Alexander
G. Howard Hays, Jr.
William G. Horstman
Edward A. Michelson
Raoul D. Nelson

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 /TWX 910-221-0300

AMA PAID MEMBERSHIP TOPPED the 1979 year-end figure, reaching 194,781 on November 7, 1979. This is an increase of 2,681 over the 192,100 total for the entire year of 1979. Dues-paying membership was running 4,059 ahead of the 190,722 figure for the same date last year. With almost two months still to go in 1980, the number of regular members was 153,109, an increase of 1,509 over the 151,600 at the end of 1979. Resident and student memberships continue to rise. On November 7, resident members numbered 20,605, compared to 20,083 at the same time last year. Student membership stood at 21,067, compared to 20,070 on the same date in 1979. Dues-exempt membership was 34,787, up from 33,137 at this time last year. "The figures are gratifying, but there is no cause for elation," said AMA EVP James H. Sammons, M.D. "Membership is up in all categories, but it takes an additional $5.5 million in the AMA budget to make up for inflation." Total membership, including dues-exempt, was 223,000 at the end of 1979. So far this year the total is 229,568.

THE 1981 NATIONAL LEADERSHIP CONFERENCE will feature health economists Victor Fuchs of Stanford University and Walter Heller, former chairman of the President's Council of Economic Advisors and current economics professor at University of Minnesota. Political journalists Hugh Sidey, Elizabeth Drew and Joseph Kraft will give an election overview and political projections for the 80s. The 1981 NLC will be on February 12-14 at the Downtown Chicago Marriott Hotel. The theme is "Trying Is Winning: It Starts With You." Registration fee is $150. For more information contact Linda Hudson, AMA Headquarters (312) 751-6716.

AMA REGIONAL SCIENTIFIC MEETINGS enter their sixth successful year in 1981. Some new aspects to next year's interdisciplinary sessions are dermatology courses for non-dermatologists and a special meeting honoring the bicentennial anniversary of the Massachusetts Medical Society. Dates and locations for the 1981 meetings are March 27-29, Williamsburg, Va.; April 3-5, Chicago; May 27-31, Dallas; June 12-14, San Francisco; September 18-20, Philadelphia; October 12-16, Honolulu; October 16-18, Huron, Ohio; October 23-25, New York City; October 30-November 1, Sarasota, Fla. and Boston; and November 15-18, New Orleans. For more information contact the Division of Continuing Medical Studies, AMA Headquarters.

THE ONLY PROVISION AFFECTING physicians' offices in the final regulations for health planning amendments is a certificate-of-need requirement for purchase of equipment costing more than $150,000 if the equipment is to be used primarily by hospital inpatients. An attempt in Congress to broaden the physicians' office provision to include all expensive equipment was defeated last year following a strong protest by the AMA.

AN AMA ACTION PROGRAM ON COST effectiveness will begin in early 1981. The program will stress promotion of state, county and specialty society cost containment efforts; documentation of the impact of these medical society projects; and increased dissemination of information. In the spring, the AMA will host a workshop conference at which national medical specialty societies will develop projects aimed at their particular constituencies. The AMA will develop medical staff projects which will be evaluated through a network of about 75 hospitals. A packaged program of health information and education will be distributed to medical societies and four pamphlets will be published to assist the public in becoming cost conscious. As part of the program, other segments of the health care industry — the American Hospital Association, Federation of American Hospitals, Blue Cross and Blue Shield Associations and the Health Insurance Association of America — have joined the AMA to form a working group to implement selected recommendations of the National Commission on the Cost of Medical Care.

In Memoriam

Frank R. Williams, M.D., 4320 Wornall Rd., Kansas City 64111; a graduate of Washington University, 1949; member of Jackson County Medical Society; aged 54; died Nov. 20, 1980.

Rex L. Diveley, M.D., 610 Medical Plaza, 4320 Wornall Rd., Kansas City 64111; a graduate of University of Kansas, 1917; member of Jackson County Medical Society; aged 88; died Nov. 24, 1980.

Walter Baumgarten, M.D., 1034 S. Brentwood Blvd., Suite 958, St. Louis 63117; a graduate of Washington University, 1939; member of St. Louis Metropolitan Medical Society; aged 68; died Dec. 6, 1980.

James R. Nakada, M.D., 2 Huntleigh Downs, St. Louis 63131; a graduate of St. Louis University, 1934; member of St. Louis Metropolitan Medical Society; aged 83; died Dec. 8, 1980.

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

(Ye Ed thanks the librarian at the Medical Library at the University of Missouri-Kansas City for making available the reference books used in preparing this column.)

A total of 9,100 physicians, 5,300 of whom must be procured during the next few months, will be required for the total strength of the Army of the United States next spring. It will consist of approximately 1,400,000 men, the surgeon declared. The initial requirement will be approximately 6.5 doctors for each 1,000 men in the military service.

The Nodaway-Atchison-Gentry-Worth Counties Medical Society met on December 2 in the first-floor lecture room at St. Francis Hospital in Maryville. Dr. Clifton M. Waugh, Tarkio, presided. Elected to office were Drs. Samuel E. Simpson, Stanberry, president; Pren J. Ross, Grant City, vice-president; and Charles D. Humberd, Barnard, secretary-treasurer. Upon the motion of Dr. E. B. Settle of Rock Port, a vote of thanks was extended to Dr. Waugh, the retiring president, for his labors on the Society's behalf during 1940.

TWENTY-FIVE YEARS AGO

A. J. Campbell, M.D., Sedalia, was presented a University of Missouri serving tray for being the oldest graduate of the University of Missouri Medical Alumni present at the homecoming recently. Frank G. Mays, M.D. of Washington, president of the Medical Alumni, made the presentation.

The November issue of the *Missouri Alumnus* includes a picture of Ralph R. Coffey, M.D. of Kansas City as a former president of the M Men. The picture was taken at a reunion luncheon of ex-athletes at homecoming of the University.

The St. Louis Medical Society's annual pilgrimage to the grave of Dr. William Beaumont was made on November 21. The address was presented by Daniel L. Sexton, M.D. of St. Louis, president of the Society.

The Cass County Democrat featured an article with pictures of J. D. Triplett, M.D. of Harrisonville, announcing his 90th birthday on December 2 and telling the story of his life.

The St. Louis Physicians' Orchestra was started in the fall of 1954. The first rehearsal and meeting were held in September at the home of Walter J. Siebert, M.D., violinist.

TEN YEARS AGO

The MSMA, in cooperation with the AMA, is cosponsoring a program of seminars and a lecture in the medical sciences at six universities in Missouri during the 1970-1971 academic year. Dr. Robert E. Shank, Danforth Professor of Preventive Medicine at Washington University School of Medicine in St. Louis, will speak at Missouri Southern College in Joplin on February 10. Dr. Calvin Woodruff, University of Missouri-Columbia School of Medicine, will speak at Central Missouri State College in Warrensburg on January 20.

The Christmas Dinner Party of the Grand River Medical Society was held at the Chillicothe Country Club on December 10, 1971. Guests present were Dr. Joseph L. Fisher, president of the Missouri State Medical Association, and Mrs. Fisher; Dr. John Martin, First District Councilor, and Mrs. Martin; Mr. Ray McIntyre, executive secretary of the MSMA and Mrs. McIntyre; and Mr. Royal Cooper, MSMA Field Secretary.

The annual dinner and meeting of the Buchanan County Medical Society and the St. Joseph Bar Association was held on November 4 in the Empire Room of Hotel Robidoux in St. Joseph. Dr. Owen W. D. Craig, president of the Medical Society, and Mr. Philip Eveloff, president of the Bar Association, presided jointly. Judge William R. Collison of the Eastern and Western Missouri U. S. District Court was the speaker for the evening.

Missouri Medicine

Vol. 78, No. 2 (ISSN 0026-6620) February, 1981

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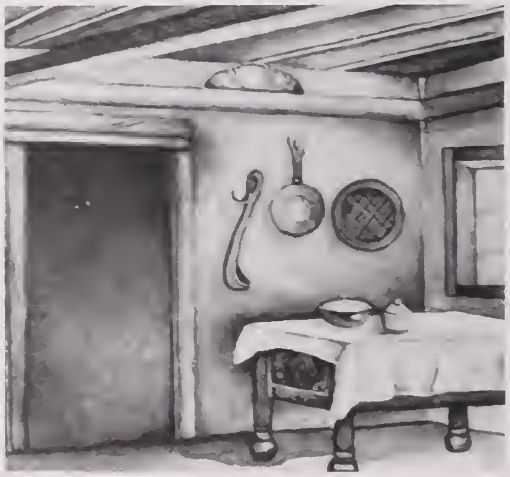
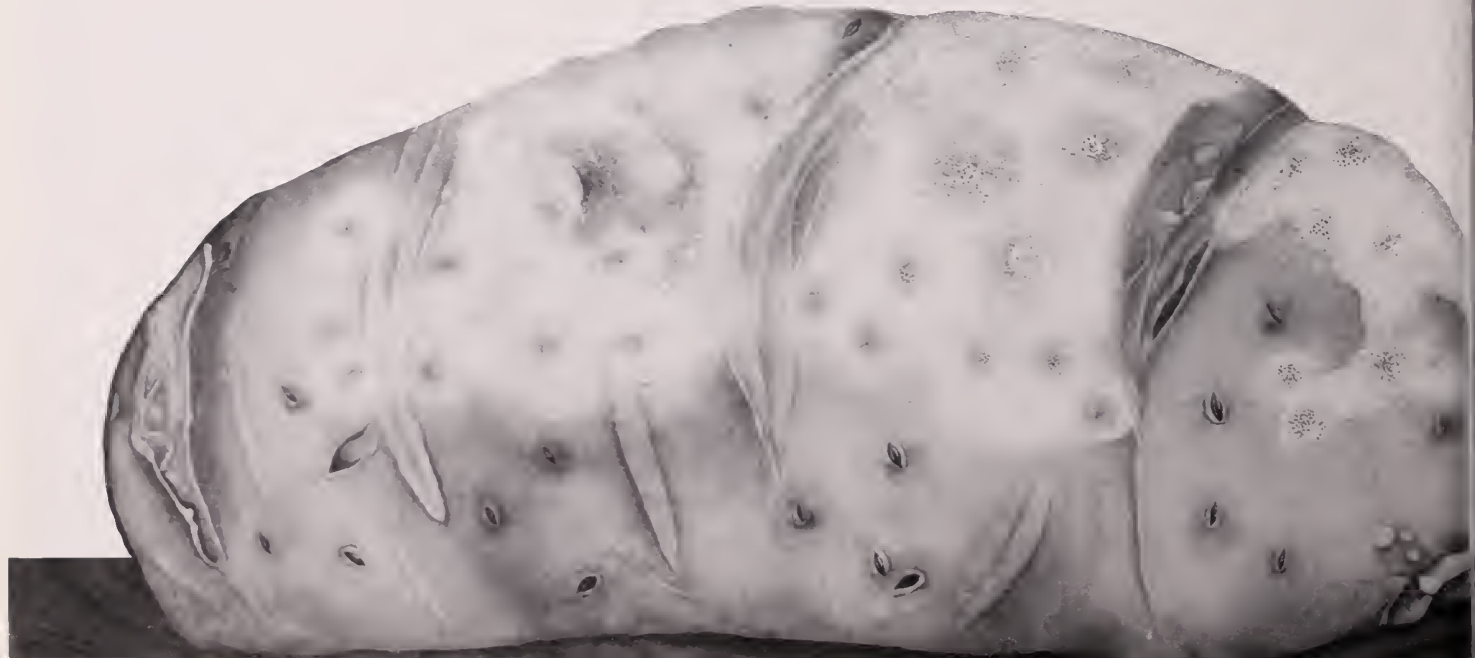
A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



Today's Tradition:
Tegopen®
(cloxacillin sodium)

for the treatment*of known or suspected staphylococcal infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]

BRISTOL 7496
BRISTOL 7496
BRISTOL 7935
BRISTOL 7935

Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.

Tegopen® (cloxacillin sodium)
Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

Tegopen®
(cloxacillin sodium)
Capsules and Oral Solution

Brief Summary of Prescribing Information

For complete information, consult Official Package Circular

(12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci Group A beta-hemolytic streptococci and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins cephalosporins, and other allergens If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e g pressor amines, antihistamines, and corticosteroids

Safety for use in pregnancy has not been established

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances such as nausea epigastric discomfort, flatulence and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered Eosinophilia with or without overt allergic manifestations, has been noted in some patients during therapy

USUAL DOSAGE:

Adults 250 mg q 6h

Children 50 mg / Kg / day in equally divided doses q 6h Children weighing more than 20 Kg should be given the adult dose Administer on empty stomach for maximum absorption

N B INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

SUPPLIED:

Capsules—250 mg in bottles of 100 500 mg in bottles of 100
Oral Solution—125 mg /5 ml. in 100 ml and 200 ml bottles

BRISTOL®

Bristol Laboratories
Division of Bristol-Myers Company
Syracuse New York 13201

$250,000 LIFE INSURANCE

AGE	ANNUAL PREMIUM	MONTHLY PREMIUM
30	$ 300	$ 25.00
40	$ 390	$ 32.50
50	$ 685	$ 57.09
60	$1755	$146.25

Applicant must meet insurance company's underwriting requirements.

Underwritten by the Old Line Life Ins. Co. of America
A USLife A+ "Excellent" Best rated company

FOR INFORMATION CALL OR MAIL COUPON

If you have been rated, declined, or have a history of heart problems (including by-pass and valve surgery), cancer, diabetes, high blood pressure, etc., a free quote can usually be provided. Rate, amount of coverage, etc., will vary depending on individual.

Significant Health Problems? ☐ YES ☐ NO

Annuity & Insurance Enrollment Service Center
Box 753—439 Marie St., Cape Girardeau, MO 63701
Phone (314) 334-0892

NAME ____________________
ADDRESS ____________________
____
DATE OF BIRTH (Male) ____________________
DATE OF BIRTH (Female) ____________________
PH. RES. __________ BUS. __________

HLA TESTING

HLA Testing for disease association studies, HLA B-27, HLA-B8, Paternity Testing, etc. Available from the Midwest Organ Bank Laboratories.

For more information call:
816-931-6353

Midwest Organ Bank

MIDWEST ORGAN BANK LABORATORIES
305 W. 43rd Street
Kansas City, Missouri 64111

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine.

Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K • TWIN-K-Cl™

For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

CAUTION
Boots Pharmaceuticals, Inc.
SHREVEPORT, LOUISIANA 71101
NDC 0524-0026-51
F-E-P CREME®
ANTIFUNGAL-ANTI-INFLAMMATORY-ANESTHETIC
ONE HALF OUNCE
Boots Ph

For Potassium Supplementation Improved Compliance…

TWIN-K®

Each 15 ml supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

The good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.
  The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

[1] Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency…

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders The drug contains the following active ingredients:

Iodochlorhydroxyquin	3 0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1 0%

INDICATIONS AND USAGE

> Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema, endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin, most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1 F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.

2 F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz)	NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3 5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)	NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-CI™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbital and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-CI is a palatable form of oral potassium replacement Excessive, undiluted doses of TWIN-K-CI may cause a saline laxative effect

To minimize gastrointestinal irritation, it is recommended that TWIN-K-CI be taken with meals or diluted with water or fruit juice A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology The serum level of potassium is normally 3.8-5 0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-CI is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-CI taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:

Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestina irritation, undiluted large single doses (30 ml or more) of TWIN-K-CI are to be avoided

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

MANUFACTURED & DISTRIBUTED BY
Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106

MSMA NEWS ROUND - UP

February, 1981

First "Key Contact" workshop successful

Over 100 persons attended the first "Key Contact" workshop held in Jefferson City. The workshop, which was designed to give MSMA Legislative "Key Contacts" a better understanding of the legislative process, was well received by all attendees. Top left, from left, Rep. Thomas A. Villa, House Majority Floor Leader and James Dudley, administrative assistant to Senate Pro Tem Norman Merrell, gave legislative forecasts for 1981. Above, from left, AMA Lobbyist Dexanne Clohan and MSMA Lobbyists Royal O. Cooper, Douglas Viehland and C.C. Swarens also participated in the program. Left, from left, John N. Martin, M.D. receives a check for $11,260 from Thomas J. Cooper, M.D., representing St. Louis Metropolitan Medical Society for the Missouri Medical Political Action Committee.

Optometry bill progressing in Senate

A bill which would allow optometrists to use topically-applied diagnostic drugs in their practice has received first round approval by a senate committee as Missouri's General Assembly wound up its first month of activity in Jefferson City.

The bill, Senate Bill 91, was voted Do Pass by the Committee on State Departments. The next step in the legislative process is to report the bill to the full Senate for later floor debate.

MSMA "Key Contacts" have been requested to contact their Senators urging the defeat of SB 91. At the recent Council meeting, Chairman John I. Matthews, M.D., expressed the hope that all MSMA members will inform their Senator that they are opposed to this bill which would allow non-medically trained personnel to practice medicine.

"This is foot-in-the-door legislation," said Matthews. "Optometrists do not need to use drugs to refract eyes. And, since they are not trained in medicine, they are not qualified to use potentially dangerous drugs."

"For many, many years state legislatures have passed laws designed to protect the public by guaranteeing that physicians have received a quality education from an accredited medical school. Now, it appears that some lawmakers want to reverse this trend by allowing persons not trained in medicine to deliver some medical care," said Matthews. "I do hope that our membership will oppose this attempt by optometrists to expand their practice through legislation."

Dr. Matthews said that bills aimed at greatly expanding chiropractic are also being considered by the General Assembly. He said that physicians must express their opposition to Senate Bill 234 and House Bills 460 and 658. Perhaps a first step, said Dr. Matthews, is for MSMA members to write or call their Senator and Representative requesting a copy of these bills.

123rd Annual Session

Preparations are now in progress for the 123rd Annual Session of the Missouri State Medical Association. The 1981 convention will be held April 9-12 at the Chase Park Plaza, St. Louis.

At this year's Annual Session, 27 scientific sessions are planned for the continuing education program. Fifteen medical societies and two voluntary health organizations will sponsor these CME sessions.

The scientific program is approved for Category I CME credit by the MSMA and is also acceptable for the prescribed and elective hours by the American Academy of Family Physicians.

Eli Ginzberg, PhD, will be the featured speaker at the opening General Session on Friday, April 9, 1981. Dr. Ginzberg, professor emeritus of economics at Columbia University, will speak on "How Much Will Medical Practice Change in the 1980s."

He presently serves as chairman of the National Commission for Employment Policy and director of the Conservation of Human Resources Project. Dr. Ginzberg is also the author of more than fifty books primarily in the field of human resources and health policy.

MSMA offers three practice management workshops

The Missouri State Medical Association is sponsoring three half-day medical office management workshops designed for practicing physicians, medical office staff and medical office managers.

The workshops will be held May 19-20, 1981 at the Joplin Holiday Inn and May 21-22 at the Springfield Howard Johnsons. Conomikes, nationally known medical practice management consultants, will conduct the workshops. Participants may attend as many or as few workshops as they wish in either Joplin or Springfield at their convenience.

The half day workshops are Better Collections, Billing and Insurance Methods; Reception and Patient Flow Techniques; and Financial Control for Physicians (limted to physicians.)

Enrollment is limited to the first 50 registrants and each workshop participant will receive a workbook filled with practical information to be used later as a reference guide.

Information concerning these workshops was mailed in early February. If you are interested in attending these workshops or would like some information, please contact the MSMA Office, P.O. Box 1028, Jefferson City, MO 65102.

Membership certificates available to MSMA members

The Missouri State Medical Association has recently developed certificates of membership for MSMA members in good standing. When framed and displayed, the parchment certificates offer physicians an excellent way to inform patients of the physician's membership in the Association.

The certificates are available upon request from the MSMA Offices, P.O. Box 1028, Jefferson City, MO 65102.

Gary Schnedler dies

Gary L. Schnedler of the Office of Membership and Development, American Medical Association, passed away January 22, 1981 at the age of 47 after a long illness.

He served as Executive Director of the Greene County Medical Society, Springfield, Missouri, for 15 years and has been with the AMA for five years.

He is survived by his wife, Patricia; daughter, Dawn Lee; daughter, Kim, age 9; son, Kevin, age 7. Contributions to an education fund for Kim and Kevin can be mailed to the American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610, Attention: Mr. David Weihaupt.

AMA seeks nominees for annual awards

The American Medical Association is inviting medical societies to consider the submission of nominees for three important awards to be presented at the 1981 AMA Annual Meeting.

These awards give national recognition to outstanding physicians for their contributions to research, medical practice and medical education. The deadline for receipt of nominations is March 1, 1981.

Please contact Neil Sutherland, Special Assistant to the Vice President, at the AMA Headquarters Office, if you require any additional information.

Doctor Rodman E. Sheen and Thomas G. Sheen Award

This award consists of a $15,000 cash prize and a commemorative plaque, presented annually to an American physician or physicians in recognition of outstanding contributions in medicine.

The Award is bestowed each year at the Annual Meeting of the AMA House of Delegates and the recipient must be present to accept the award. Candidates must be United States citizens and must possess an M.D. degree. The Award can recognize either a single achievement or an accumulated career of excellence.

Doctor William Beaumont Award in Medicine

The Doctor William Beaumont Award in Medicine provides a $2,500 stipend and a plaque. It was established as an encouragement for younger physicians. Physicians under 50 years of age or under, who are U.S. citizens and have distinguished themselves in medical science are eligible for the Award. The AMA Board of Trustees selects the recipient from among nominees submitted by its Awards Committee.

Joseph B. Goldberger Award in Clinical Nutrition

The Award, consisting of a commemorative plaque and $1,000, was established in 1949 by the Board of Trustees to serve as a stimulus to medical investigators in advancing the frontiers of public and personal health, and to honor physicians who have made important contributions to the knowledge of nutrition.

The Award was named in honor of the late Doctor Joseph B. Goldberger, who was chiefly responsible for the discovery of the cause and treatment for pellagra. It has been bestowed every year since 1949, with the exception of the years 1950, 1955 and 1956. Candidates must be members of the Association.

MSMA Committee on the Impaired Physician

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Missouri State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript.

Manuscripts should be typewritten, double spaced, and the original with one carbon copy submitted. Retain another carbon copy for proofreading. Used manuscripts are not returned. School and hospital appointments of the author should accompany the manuscript. It is desirable that a synopsis-abstract of approximately 135 words accompany the manuscript.

References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

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Missouri Medicine

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Photo-Comment by James W. Clawson, M.D., Springfield

Patient's eye view.

Editor's Corner

IN BEHALF OF THE PATIENT

I do believe that every physician, nurse and all the rest of the health delivery retinue, should feel obligated to get sick every once in awhile. They should be sick enough to be abed in a hospital for at least 24 hours. This should be enough to expel some of their cantankerous humors and, certainly, they should be dismissed as more mellow and understanding humans than when they went in. The horrors of bed pans, the ill-considered attention of those who drift by and the casual dealing off the arm of medical care, common to all of us, would come through in sharp focus and would result in more compassionate medical care. I feel quite sure the ill do not appreciate some of the treatment they get and they are in no position to buck it.

Our hospitals are great improvement on the pest-houses of the middle ages, although our incidence of secondary bacterial infections still leaves something to be desired. Our chrome and glass structures are models of architectural excellence. I am not about to knock the expertise of cardiovascular monitoring, because I may all too soon become a participant. Hospitals have most assuredly achieved a dignity denied them in the past.

Along the way, however, there has occurred a curious dichotomy. Science took us one way and, despite all the prattling about the human side of illness, we have paid too little attention to the person who is sick.

In the immediate few days after the end of W. W. II, I was fortunate to be able to visit some of the hospitals in the Tokyo-Yokohama area. By our standards their medical facilities were primitive. I am sure that some of this was because of the rigors of the war. However, their ill were cared for tenderly and considerately by members of the family who went to the hospital and lived in with the patient. The necessary skilled care was administered by the hospital staff. The remaining care was delivered by those the patient knew and loved. The overall hospital picture was one of serenity and peace. I have never found this elsewhere to a similar degree, and I don't believe the oriental personality is that much different from our own.

Regardless of our marvelous advances in medicine, I still believe we are medievally inattentive to the personal concerns of our patients who are uprooted from their homes and transported into strange surroundings and under trying circumstances. However, no matter how you cut it, the physician, as leader of the health care team, should be responsible for the psychological comfort of his patient as well as the attention to pathology. Down to the wire there is no one else in whom this responsibility can be vested.

In this, I believe that 1981 American medicine has much to learn.

Wilfred E. Wooldridge

Wilfred E. Wooldridge, M.D.

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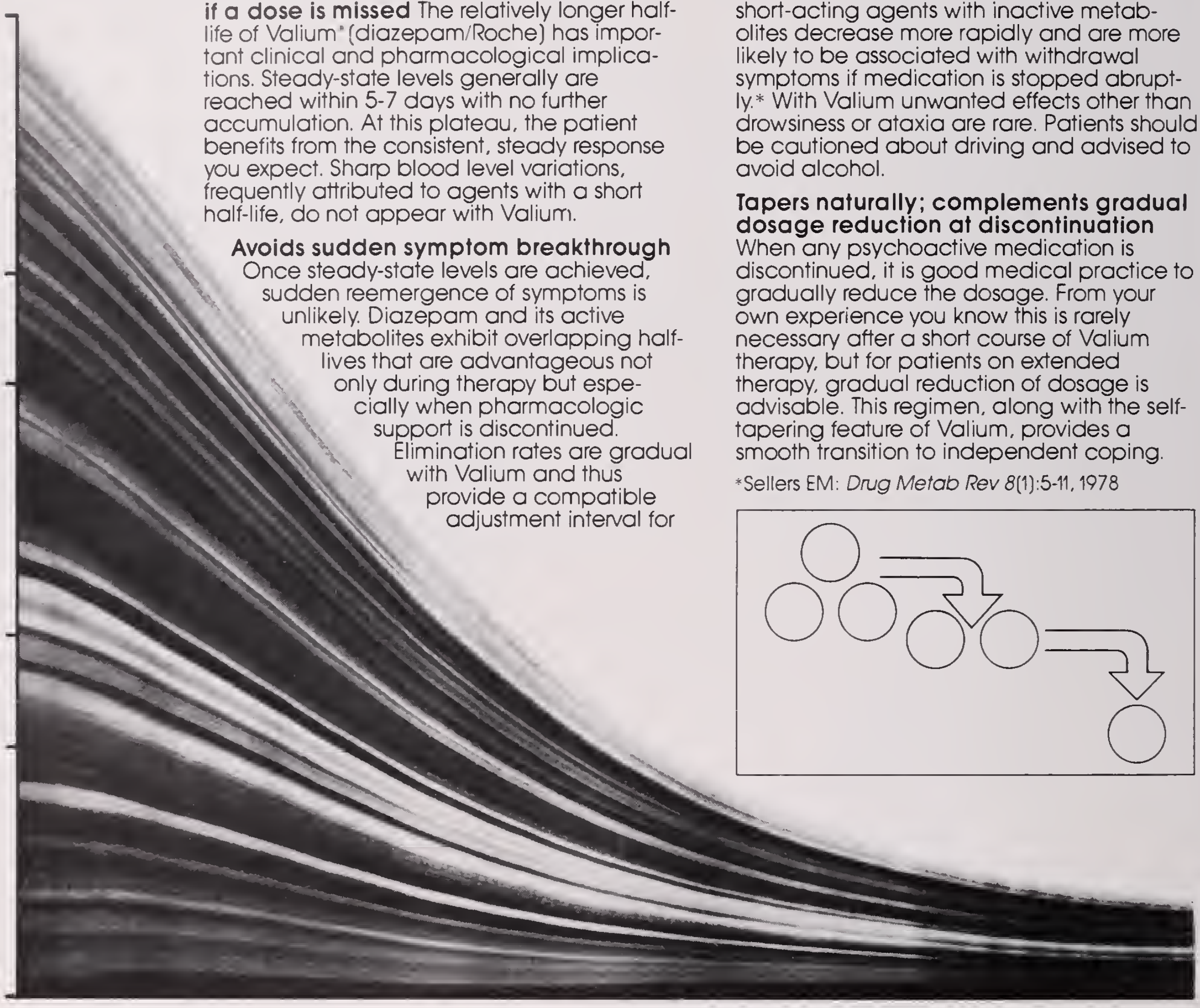

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*Sellers EM: *Drug Metab Rev 8*(1):5-11, 1978

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Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence
Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy

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MSMA President Bradley Addresses House of Delegates at Fifth Interim Session

The following is a transcript of the address delivered by Richard V. Bradley, M.D., president, at the MSMA Interim Session in Joplin on November 1-2, 1980. Transactions of the Interim Session are reported on page 90.

MEDICINE — PROPERTY — NEIGHBORS

During this fifth interim meeting of the Missouri State Medical Association, you, the Delegates of the House, are charged to attend to the appropriate medical matters. In another sense, you are here to maintain the medical properties of the State of Missouri.

Property can be a quality or a trait particular to a person or thing; an effect that one object has on another object; a piece of real estate; or even a piece of scenery as used in the theater. Property could be used to describe the substance of medicine as it applies to and belongs to the community, the patients, the hospitals and the physicians rather than as an item of single ownership. St. Thomas Aquinas said that "man shall not consider his material possession his own, but as common to all, so as to share them without hesitation when others are in need." Abraham Lincoln said, in 1860, that "Whenever there is a conflict between human rights and human property rights, human rights must prevail."

During these two days, you will receive reports of the Council, the officers, the staff, the commissions and the various committees. You will consider and act upon the several resolutions designed to improve the properties of the medical community of Missouri. The officers, council, staff and members of commissions hope that you will find favor with the results of their labours. If not favor, then at least some appreciation for the energies in your behalf in such areas as the following:

MOMEDICO: Your professional liability insurance company has gone into its puberty this year and is struggling toward adulthood at a promising rate of growth. Success will be when all Missouri physicians select it as their insurance and as their investment.

The Legislative Activities have been many and varied. It is hoped that all eligible voters will turn out and tell the state and country what they want three days from now.

Your Cost Effectiveness Committee has quietly moved into almost every hospital staff in the state in a realistic move to make medical care cost effective rather than just cost restrained. There is much more being done than talked about in this area, and it deserves publicity for its merit.

You will be asked to determine the fate of the interim session. I wish to remind you of the fact that your Council and staff act at the wisdom of the House of Delegates in preparation for the annual meeting of the House of Delegates of the AMA each summer and in preparation for the Missouri Legislature each winter. Please consider maintaining the availability of the wisdom of the delegates of the House of the MSMA by some mechanism pertinent to the changing needs of Missouri.

Your council continues to wrestle with the ever-increasing appearance of specialized but only partly trained individuals who wish to enter into the practice of medicine rather than to remain in an ancillary position as part of the supporting team. These specialty groups will continue to enter medicine in varying degrees and should remain in the control of an overall policy-developing board which should be maintained by the medical profession. So long as any group works to the good of the total medical community let them be welcome, but if the reverse is true, then the medical community should be aware of inherent danger, another example of where we should maintain the medical properties of Missouri.

Your officers, councilors and staff have been studious over this past year, but they remain mindful of the fact that the community, the patients, the physicians and their component societies remain ever important to the policy making progress of medicine. You, the delegates, are the elected or appointed response individuals for your component society, charged to accept, evaluate and respond to the forces acting in interface with medicine. They, your peers back home cannot abdicate, *and usually do not,* a large responsibility present day by day in that each physician is a (1) living example of the science and art of the physician, daily forming local policy and daily helping to shape the image of medicine as seen by both proponents and critics; (2) sensor of external forces acting upon our community in all areas including medicine. Their concern should be enough to report appropriately or even to respond to each stimulus in appropriate degree, and in appropriate speed of response; (3) a member of the medical team who can, by loyalty and by action, strengthen the internal structure of the profession by support, by action at times, by opposition of a constructive nature, and by standing up to conflict rather than to shy away from confrontation for the sake of appeasment.

All persons who consider themselves as members of the medical community should consider themselves in like fashion as guardians of the commonly held *properties* of that community. They should be aware of the physical fact that property has finite limits where responsibility and jurisdiction begin and thus passing to or from a neighbor.

History relates the respect that a neighbor has for one who is capable, attentive, considerate, honest and represents a united family. A neighbor also adds just a little respect or concern or awareness when the other neighbor is wise enough to refrain from predictability. Conversely, neighbors tend to lose respect for another in the demonstration of inattention, weakness, a divided house, lack of trust or predictability.

As a medical society, we do stand ready to protect the obvious limits of our discipline or properties as we are doing at this meeting. Do we do as well with the not so obvious? The long-term chronic and more subtle forces which will collectively present a challenge to the finite limits of our jurisdiction and responsibility?

We could concentrate efforts on ways to unify our patients, our hospitals and our physicians. We can pursue efforts to obtain greater peer review with internal quality control powers as the legal profession was wise enough to do in the bar association under their control.

We can place greater attention and focus upon the cost effectiveness with which medical care — both preventive and acute — is delivered and — further — defend the concept of effectiveness over containment. We can be more vocal in using truth to combat the propaganda of those who claim that federally controlled health care can be successful in the United States when it has been a financial failure as well as a quality failure in every attempt past. We must preserve the properties of the medical community for its people and should not let those properties pass into the hands of any power structure which would attend only to containment and rationing.

To misquote Henry Hetherington, who wrote *The Poor Man's Guardian,* "Misuse of those properties could create tyrants but misuse of tyrants might not be able to restore those properties."

Films from the AMA medical health film library are available on loan to physicians, medical societies, medical schools, hospitals and other professional medical groups. There are hundreds of films in 21 categories for health care professionals and nine categories for the public. All films are 16 mm. For instructions about ordering, request the complimentary 1980 *Medical Health Film Library Catalog,* Dept. of Audiovisual and Self-Study Programs, AMA Headquarters, 535 N. Dearborn, Chicago, IL 60610.

An added complication... in the treatment of bacterial bronchitis*

Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S pneumoniae

Brief Summary.
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Lower respiratory infections including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae) Haemophilus influenzae* and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor should be administered cautiously to any patient who has demonstrated some form of allergy particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents e g pressor amines antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip USP Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

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Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

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Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

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* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

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Special Review Article

WILLIAM E. DAVIS, M.D. *and*
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Meniere's Disease: Current Concepts

Although Meniere's disease is a disease of unknown origin, its diagnosis is not difficult. This review of its clinical manifestations, pathology, evaluation and treatment was prepared for primary physicians in terms of generally accepted concepts. The authors believe that with proper attention, Meniere's disease can be accurately diagnosed and controlled with effective treatment.

Dr. Davis and Dr. Templer are associate professors, Division of Otolaryngology, University of Missouri Medical Center.

WHAT IS MENIERE'S DISEASE? Originally described by Prosper Meniere in 1861, the disease was defined by a symptom complex of vertigo, tinnitus and sensorineural hearing loss.[1] When the classic symptoms are present, diagnosing Meniere's disease is easy. In contrast, when the presentation is not classic, patients who have "unsteadiness," orthostatic hypotension, cardiac abnormalities, neurologic abnormalities or other diseases are misdiagnosed as having Meniere's.

The mechanism by which tinnitus, vertigo and sensorineural hearing loss occur simultaneously was not elucidated until 1938 when Hallpike and Cairns described the inner ear histologic findings of endolymphatic hydrops.[2] For the past 30 years, the literature abounds with reports on the etiology, diagnosis and treatment of Meniere's disease. Numerous etiologies have been proposed, but Meniere's disease remains a disease of unknown origin. The diagnosis usually is not difficult and treatment is now generally effective.

Our goals in this paper are to outline Meniere's disease for primary physicians in terms of generally accepted concepts and to summarize our approach to the disease. Audiological tests are mentioned since they are necessary for understanding diagnosis or treatment.

CLINICAL MANIFESTATIONS

The classic symptom complex of vertigo, sensorineural hearing loss and tinnitus usually, but not always, occur together. Characteristically, Meniere's disease is unilateral. Episodic attacks may begin at any age, but generally the age of onset is around 40 years. There appears to be no sex predilection. The frequency of attacks is variable with remission and exacerbation being common. Unilateral fluctuating sensorineural hearing loss and true vertigo (defined as the hallucination of turning) occur during the attack. Tinnitus is usually present during an acute attack and may be present when the patient is asymptomatic.

The sensorineural hearing loss is low tone at first, but later may assume any configuration.

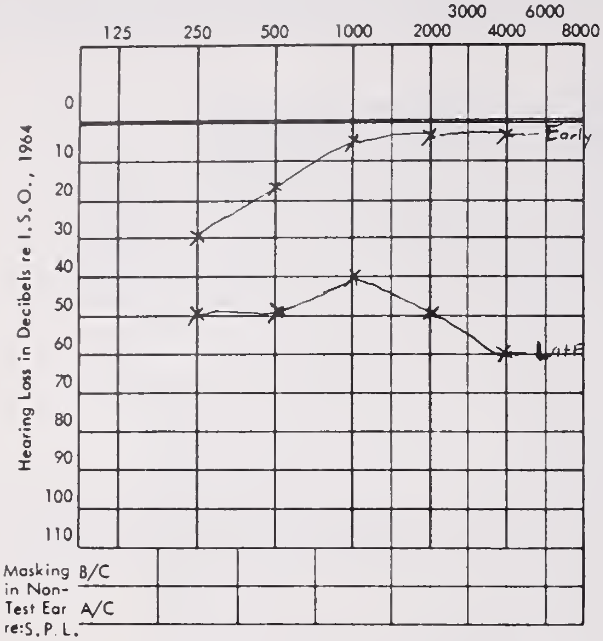

Fig. 1 Typical audiogram of early and late Meniere's patients. (This is a sensorineural loss so air and bone conduction are equal.)

With "end stage disease," it generally assumes a "flat" (all sound frequencies involved) appearance (Fig. 1). The sensorineural hearing loss may become so severe that the patients ability to understand speech (speech discrimination) is impaired.

A vertiginous episode usually lasts from two to six hours. Frequently, there is a prodromal period when the patient is aware that his attack is imminent and a period after the attack when the patient is not well. During the acute vertiginous episode, nausea and vomiting may be so severe that the patient lies perfectly still with eyes closed, fearing that any head motion will stimulate more vertigo. During the attack, he may be too ill to visit the doctor's office or emergency room. Family or friends may observe nystagmus during the acute attack.

Another symptom of Meniere's disease is aural fullness. A feeling of fullness in the involved ear along with tinnitus in the involved ear is sometimes helpful in identifying the diseased ear.[3]

Variations in the clinical manifestation of Meniere's disease do occur. Cochlear hydrops, one variation, is defined as Meniere's disease involving only the cochlear system. Aural fullness, tinnitus and sensorineural hearing loss that is episodic in frequency, but without vertiginous symptoms, is characteristic.[4] These patients may go on to also develop classic Meniere's with vertigo.

Vestibular hydrops is another variant of Meniere's disease involving only the vestibular system. Episodic vertigo with aural fullness but without complaints of tinnitus or sensorineural hearing loss differentiate this variant. Later, these patients may or may not develop cochlear symptoms.

PATHOLOGY AND PATHOPHYSIOLOGY

Current concepts suggest that endolymphatic fluid probably is secreted from the stria vascularis of the cochlea and absorption takes place in the endolymphatic sac (Fig. 2). In 1938, Hallpike and Cairns described the temporal bone histology of Meniere's disease as a dilated scala media, saccule and utricle (endolymphatic hydrops). The mechanism by which this dilatation occurs is unknown. Whether there is an oversecretion of endolymphatic fluid or a defective absorption of endolymph causing dilation is unknown.[5] Regardless, at times, a rupture of endolymphatic membrane with resultant mixing of the endolymphatic and perilymphatic fluids occurs. Normally, perilymph is low in potassium and high in sodium, whereas the opposite exists in endolymph (Fig. 3). In certain Meniere's patients, diagnostic taps through the oval window have documented mixing of perilymph and endolymph. (This procedure is not without risk to a patient with good hearing.)[6]

In most cases of Meniere's, the populations of hair cells and neurons are normal.[7] Dilatation of the endolymphatic space with eventual rupture is thought to be the mechanism by which the cochlear and vestibular nerves are inappropriately stimulated during an acute attack of Meniere's disease. Theoretically, neuroepithelium does not conduct impulses appropriately because of electrolyte changes or possibly pressure changes.

ETIOLOGY

As previously mentioned, the absolute cause of

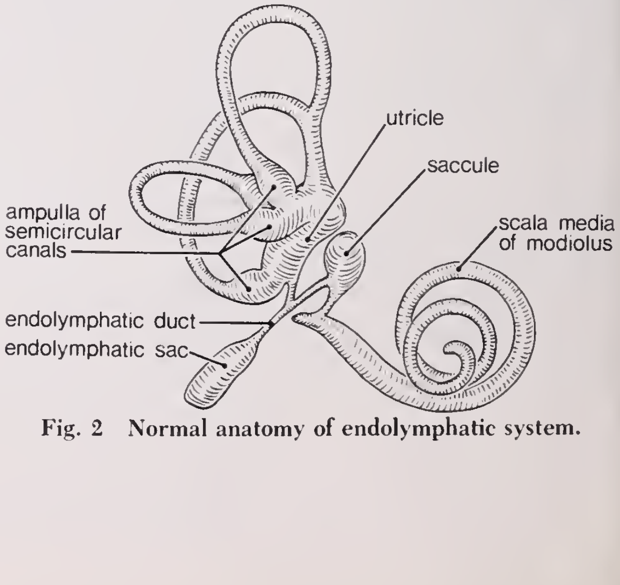

Fig. 2 Normal anatomy of endolymphatic system.

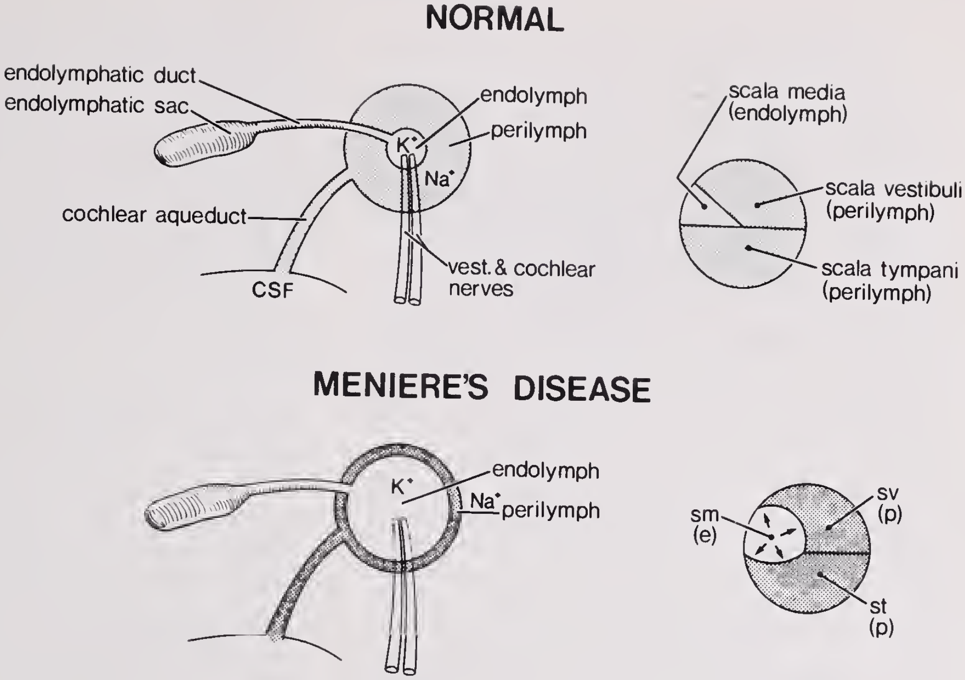

Fig. 3 Schematic representation of cochlear pathophysiology in Meniere's disease contrasted with normal physiology.

Meniere's disease is unknown. Numerous etiologies have been proposed. Allergy, syphilis, diabetes mellitus, viruses, hyper-thyroidism, vitamin deficiency, histamine sensitivity, autonomic dysfunction, hyperlipoproteinemia, a small internal auditory canal and other causes have been implicated as etiologic in Meniere's disease. The disease sometimes appears to be caused by each of these factors because control of one or more of these factors may lead to remission. Some have justly reasoned, therefore, that Meniere's disease is a result of nonspecific injury to the membranous labyrinth. This indeed, may be the common denominator. To generalize, however, we would state that at present the etiology of Meniere's disease is in doubt. Also, some diseases, if not controlled, adversely affect the clinical course of Meniere's disease. Finally, dogmatic statements as to cause and effect of Meniere's disease are hazardous since the natural history is one of exacerbation and remission.

EVALUATION

The patient's history is an extremely important consideration in diagnosing Meniere's disease. Physical examination, audiometric examination, laboratory data and X-ray examination should be supportive of the diagnosis. A thorough examination of the head and neck, along with a good neurological examination, is in order. Abnormalities such as cholesteatomas and tumors of the middle ear, therefore, would be identified. Cranial nerve abnormalities other than cochleovestibular would indicate a diagnosis other than Meniere's disease. A general physical examination with proper attention to signs of endocrine abnormalities and possible metastatic disease will rule out the occasional endocrinopathy or metastatic carcinoma causing central or peripheral vertigo.

The audiometric examination, perhaps, will be normal early in the course of Meniere's disease. Later, there may be a low tone sensorineural hearing loss and, usually in "end stage" disease, a flat sensorineural hearing loss with poor speech discrimination. Tests for recruitment should be performed. Recruitment is a reaction of a diseased cochlea. Basically, it is an abnormally sensitive cochlea that responds to very small increases in sound stimuli. Two tests which are positive in a recruiting cochlea, such as that which occurs in Meniere's, are the Short Intensity Sensitivity Index (SISI) and the Alternate Binaural Loudness Test (ABLB). Screening procedures for retrocochlear of eighth nerve lesions are the reflex decay test and the tone decay test. These tests are based on the fact that a diseased eighth nerve will lack reserve on testing and, with repeated presentation of sound, energy stimuli will fatigue.

We routinely use the glycerol test to confirm the diagnosis of Meniere's disease.[8] The ingestion of 1½ cc per kg of glycerin mixed with 2 cc per kg of saline will sometimes cause the sensorineural hearing loss of Meniere's to improve (Fig. 4).

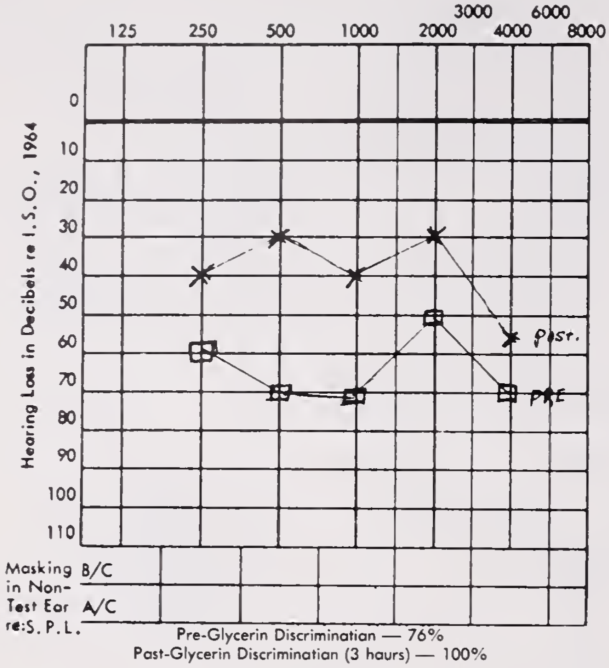

Fig. 4 Response to ingestion of glycerin. At three hours, hearing acuity has increased as well as speech discrimination.

Physiologically this test is said to reverse endolymphatic swelling by the action of an oral osmotic diuretic. A negative test does not rule out Meniere's disease. If the test is positive however, it is diagnostic of Meniere's disease.

A caloric examination is routinely performed to rule out the possibility of unilateral vestibular nerve weakness. Early in the course of Meniere's disease, the caloric response will be normal. Later, there will be a mild-to-moderate decrease in caloric response. If there is no caloric response, the vestibular nerve should be closely evaluated in the internal auditory canal or brain stem area. The possibility of acoustic neuroma increases with unilateral failure of caloric stimulation. As a screening caloric procedure, place 2 cc of ice water in the external canal and watch for the presence of nystagmus. The neck should be extended 60 degrees to allow the horizontal canal to be perpendicular to the floor. For a more complete and permanent record, we use the electronystagmogram (ENG) which records eye movement in response to cold and warm caloric stimulation.

The laboratory evaluation for Meniere's disease consists of an Oral Glucose Tolerance Test, Thyroid Studies (T_4), the Fluorescent Treponema Antibody Test and a Serum Lipid Profile (triglycerides, cholesterol, high density lipoprotein-cholesterol). Any abnormalities are appropriately treated.

X-ray examinations of the internal auditory canal are routinely obtained in patients who have Meniere's disease. The transorbital view of the internal auditory canal, the Stenver's view of the mastoid and a Chamberlain-Townes view are routinely ordered. Any widening demonstrated on X-ray indicates a closer look at the internal auditory canal or cerebellopontine angle. Further x-ray studies and audiometric studies are used as needed to rule our other lesions.

TREATMENT

The treatment of Meniere's disease is basically medical. Should medical treatment fail, surgical treatment is initiated. Surgical procedures are of two varieties: (1) those that aim at conservation of the hearing with control of vestibular symptoms and (2) those that destroy useless hearing to control vestibular symptoms.

Medical treatment is varied. This disease is one of exacerbation and remission, and numerous medical regimes have been proclaimed effective. Vitamins, vasodilators, penicillin, antihistamines, allergic management, metabolic management, diet management and diuretics have all been used. We will not comment on all methods of treatment. Suffice it to say, however, that at present our method for medical management is salt restriction (2 gm sodium diet) and the use of a thiazide diuretic. Presently, we use 50 mg of hydrochlorthiazide daily.

During the initial period of treatment, the patient is treated with a labyrinthine suppressant. Diazepam is an effective labyrinthine suppressant as demonstrated by its effect in unilaterally labyrinthectomized animals. If the patient is currently symptomatic, we will prescribe 5 mg of diazepam three times daily and reduce the dosage as his symptoms become controlled. The thiazide diuretic is discontinued as control of symptoms occurs. The control rate for this regime is 70% to 80%. Recurrence of symptoms will prompt a return to the daily diuretic and, if need be, diazepam.[9-11] The patient is to continue indefinitely on a 2 gm to 4 gm sodium diet.

Medical failure after an adequate trial of three months prompts surgical therapy. Ninety percent of medical failures occur in the first 12 months.[9] For the patient with incapacitating vertigo and good hearing, an endolymphatic sac operation or middle cranial fossa vestibular nerve section is recommended (Fig. 5).

Endolymphatic sac operations are performed via a mastoid approach. The endolymphatic sac is identified just anterior to the sigmoid sinus and below the posterior semicircular canal. Endolymphatic sac decompression or endolymphatic fluid diversion to the mastoid or subarachnoid space are the current methods in use. This procedure is relatively benign and should be expected to offer control of vertigo 70% to 80% of the time after medical failure. Hearing is usually not damaged. Morbidity associated with this operation is not much more than that with a routine mastoid operation.

Middle fossa, total vestibular nerve section is of course an operation containing more inherent risks than the previously mentioned mastoid operation. However, the complications of this operation seem to be relatively infrequent and, with division of both superior and inferior vestibular nerves, the control of vertigo is greater than 90%.[11] Recovery time in this operation is slightly prolonged compared to the endolymphatic shunt.

Finally, destructive procedures are offered to the patient who has incapacitating vertigo and poor hearing. The goal in these operations is to remove vestibular neuroepithelium. Labyrinthectomy may be performed either transcanal (through the middle ear space and stapes foot plate into the vestibule area) or transmastoid (going through the boney labyrinth to approach the internal auditory canal). Vestibular nerve section may also be performed via the mastoid approach. The results with labyrinthectomy approach 95% for control of vertigo. Loss of hearing makes labyrinthectomy an operation for those who have useless hearing.[10]

Summary

Meniere's disease is reviewed in regard to its clinical manifestations, pathology, etiology, evaluation and treatment. Since this disease is of unknown etiology, diverse medical treatments are advocated. Current methods of surgical treatment are reviewed. With proper attention to detail, we believe that the diagnosis of Meniere's disease can accurately be made and effective treatment can be applied to control this disease.

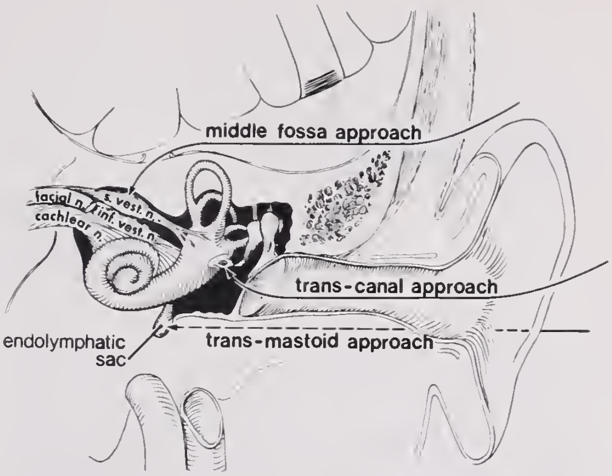

Fig. 5 Surgical approaches to Meniere's disease. Mastoid approach also may be used for labyrinthectomy and nerve section as well as for sac procedures.

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"America's present need is not heroic but healing; not nostrums but normalcy."

W. G. Harding,
Speech at Boston,
May 10, 1920

SUSAN K. COX, M.D. *and*
E. DALE EVERETT, M.D., *Columbia*

Tularemia

An Analysis of 25 Cases

WHILE INVESTIGATING A PLAGUE OUTBREAK in 1911 following the San Francisco earthquake, McCoy and Chapin isolated a previously undescribed bacillus from dying ground squirrels in Tulare County, Calif. and suggested the name *Bacterium tularense*.[1] The first documented case of tularemia in a human was a patient with oculoglandular disease described by Wherry and Lamb in 1914.[2] Dr. Edward Francis did much of the early work on epidemiology and the immunologic aspects of the organism and suggested the name tularemia.[3, 4] Current taxonomy recognizes this contribution by designating the organism as *Francisella tularensis*.

Although the discovery and the early cases of tularemia (also known as rabbit fever and tick fever) were in the western United states, it has become apparent that the highly endemic focus is in the mid-central United States. Missouri is included in that area and ranks second only to Arkansas in the number of reported cases.[5]

This review revealed that clinical types of tularemia seen at the University of Missouri Medical Center differ from those reported in the literature. This suggests that practicing physicians readily recognize the classic ulceroglandular form but tend to refer patients with unusual forms of the disease. Tularemia should be considered in the differential diagnosis of any patient with the following symptoms: fever, toxicity, malaise and headache associated with lymphadenopathy, pneumonia of uncertain etiology, abdominal pain and diarrhea lasting four days or more, or with exudative-ulcerative pharyngitis.

Dr. Cox and Dr. Everett are from the departments of medicine, University of Missouri-Columbia Medical Center and the Harry S. Truman Veterans Administration Hospital.

We have reviewed the cases of tularemia seen at the University of Missouri Medical Center (University of Missouri-Columbia Medical Center and the Harry S. Truman Veterans Administration Hospital). During this review, it became apparent that the manifestations of the disease seen at UMMC generally represented atypical presentations as compared to those reported in the literature. Therefore, the purpose of this report is to present a brief review of tularemia with emphasis on the clinical setting in which is occurs and the recognition of the more atypical presentations of the disease.

METHODS

The medical records of all patients discharged from UMMC from 1954 through 1979 with the diagnosis of tularemia were reviewed. Serological results were also reviewed. However, adequate serologic records were available for only the past eight years. Patients with a single agglutination titer of $\geq 1 : 160$ or a four-fold rise in titer plus clinical parameters compatible with tularemia were selected as the basis for this report.

RESULTS

Twenty-five documented cases of tularemia were found. An additional 12 patients with agglutination titers of $\geq 1 : 160$ were also discovered but they did not have a history and physical findings compatible with tularemia. Three patients had the discharge diagnosis of tularemia but no serological confirmation of the disease. The following results are based on the 25 patients with confirmed disease.

EPIDEMIOLOGIC FINDINGS

The geographic distribution of cases was predominantly south of the Missouri River, with 19 of 25 patients contracting the disease in the southwest or south central counties of the state. Six cases occurred north of the Missouri River, repre-

TABLE 1
SOURCE OF CONTACT FOR 25 CASES OF TULAREMIA

Source of Contact	*Number of Cases*	*Percentage*
Ticks	8	32
Rabbits	5	20
Unknown	5	20
Squirrel	2	8
Laboratory organism	1	4
Ticks and rabbit	1	4
Ticks and squirrel	1	4
Rabbit and fox	1	4
Rabbit and squirrel	1	4
Total	25	100

senting five different counties.

Tularemia occurred throughout the year, but the majority of cases or 19 of 25 (76%) were seen during the months of April through October. The remaining six patients were admitted during November through January. In 80% of the cases, a source of infection could be determined (Table 1). Approximately one third of the patients (eight of 25) gave a history of recent tick bites. Twenty percent had contact with only wild rabbits. The remainder had a history either of contact with squirrels or of multiple contacts. One patient acquired the disease in a laboratory. Of the five patients (20%) who had no known source, all lived in rural areas where large populations of ticks and wild mammals are known to be present. In addition, they had domesic cats or dogs or both. Incubation periods could not be determined from our retrospective review.

CLINICAL FINDINGS

Patients' ages varied from four to 78 years, with 13 patients being under age 40. There were 21 male and four female patients.

All patients had fever and malaise and most had headache. Symptoms and signs were otherwise related primarily to the organ system most prominently involved, e.g., skin ulceration and regional adenopathy, cough and shortness of breath, sore throat, abdominal pain, diarrhea, etc. Based on previous classifications, six of the patients had ulceroglandular disease; five had the glandular form, six had typhoidal; five had pulmonary; and three had orpharyngeal tularemia (Table 2).

LABORATORY FINDINGS

White blood cell counts were the only routine laboratory studies of any value in suggesting the diagnosis. Despite the presence of fever and significant toxicity, white blood cell (WBC) counts on admission ranged from 2,800/cu mm to 15,200/cu mm. Eighteen of 25 patients (72%) had WBC values of ≤ 10,000/cu mm.

Agglutination titers ranged from 1 : 80 to 1 : 81,920. These largely reflected the time at which they were obtained during the course of the illness and had no correlation with the severity of the disease. No significant data could be collected on the duration of the antibody titers.

TABLE 2
CLINICAL SYMDROMES OF TULAREMIA

Type	*UMMC Patients (%)*	*Representative from Literature (%)*[6-10]
Ulceroglandular	24	70.0-87.5
Glandular	20	3.0-14.0
Typhoidal	24	7.7-15.0
Pulmonary	20	7.7-12.7
Oropharyngeal	12	0.0-4.3
Oculoglandular*	0	0.9-2.0

* One case with the diagnosis of oculoglandular tularemia in our study was not verified serologically.

TREATMENT AND COURSE

Twenty-four of the patients received antimicrobial treatment. One patient, who was "well" when seen at UMMC, received no therapy. Sixteen patients received streptomycin, seven received tetracycline and one was treated with both antibiotics. Within one to six days after receiving appropriate therapy, all patients became afebrile with a mean time of three and one-half days. All patients who were symptomatic when therapy was begun were subjectively improved within 24 to 48 hours. To our knowledge, no patient sustained a chronic complication and there were no fatalities.

DISCUSSION

Tularemia is caused by a small pleomorphic, aerobic, gram-negative rod that has fastidious growth requirements. The disease is perpetuated in small mammal populations (usually rabbits) primarily through a tick-small animal cycle. Man is an accidental victim of the disease.

Tularemia was first recognized in the United States in the middle to early 1900s and became a reportable disease in 1927. Over the years, there has been a steady decline nationally in the number of reported cases, falling from a peak of 2,291 cases in 1939 to 193 cases in 1979.[5, 11] Missouri has reported an average of more than 20 cases per year for the past three decades. During the seventies, there was an average of 161 cases of tularemia reported per year in the United States.[5] Missouri was second only to Arkansas in the number reported during the past ten years, exceeding Oklahoma and Texas, which also reported more than 100 cases (Fig. 1).

Seventy-six percent of our patients, most of whom were seen in the past ten years, were from counties south of the Missouri River. This current trend is in agreement with a previous survey by Assal *et al* who found that 90% of the cases during the years 1949-1965 were from southern Missouri.[12] This geographic pattern is further supported by the report of Callaway and his colleagues of 78 cases over a four-year period in a southwest Missouri hospital.[13] Southern Missouri is known to have a large populations of ticks and wild animals, which may account for this distribution.

Although tularemia occurs throughout the year, 76% of our cases occurred during the months of April through October. This corresponds to the time when man is most often in contact with ticks.

Man usually contacts the disease in one of several ways: tick bites, crushing infected ticks, handling infected animals, inhalation of the organism from infected sources or ingestion of contaminated food or water. Ticks are the most common vector for tularemia in the mid-central United States, accounting for 55% to 85% of cases in some series.[13-15] Tick transmission occurred in 32% of our cases and may have accounted for up to 40%, when the two patients who had exposure to ticks plus another animal are considered. Tularemia is endemic in more than 50 species of animals. The most common species involved in tramsmission to man are rabbits and squirrels. These accounted for 32% of our cases and may have been responsible for up to 44%, since three patients had contact with rabbits or squirrels plus ticks or other animals (Table 1).

Francisella tularensis is a highly virulent organism and can penetrate intact skin. As few as ten organisms injected subcutaneously, or inhalation of ten to 50 organisms, can produce illness in the human.[16] It can survive freezing for at least a month and stays viable in water for days. Because

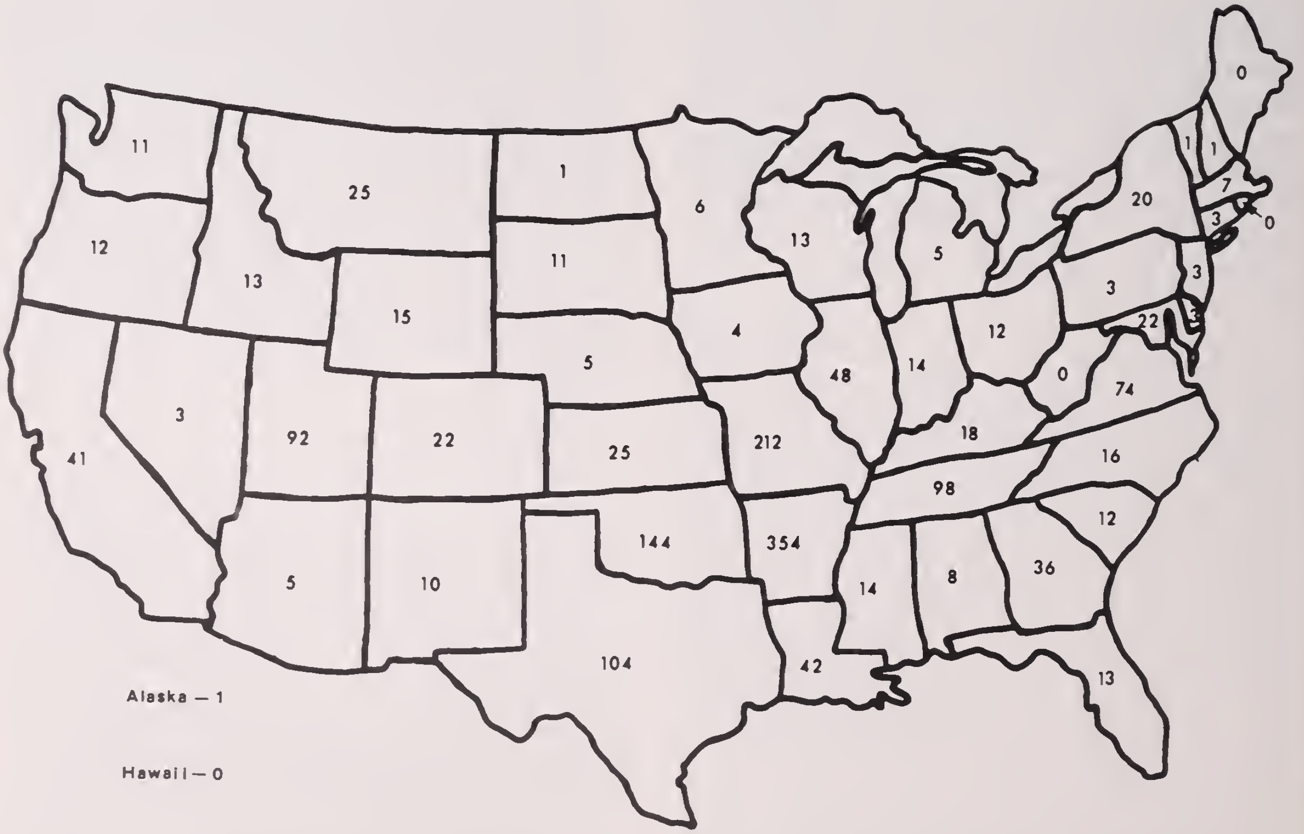

Fig. 1 Geographic distribution of reported cases of tularemia in humans in the United States in 1970-1979.[5]

of these properties of survival and virulence, a simple contact with infected material or animals or inhalation of a few organisms can produce illness. This may account for the lack of a known source in 20% of our patients.

The clinical presentation is highly variable, reflecting the organ system involved as determined by the portal of entry. The incubation period could not be determined in the majority of our patients, but others have found it to vary from two to 15 days with most of the cases occuring between three and seven days following exposure. The disease has an acute onset with fever, chills, malaise and headache.

Of the five standard classifications of tularemia, the most common clinical syndrome reported is the ulceroglandular type, which is characterized by fever and a primary cutaneous ulceration with regional lymphadenopathy. This form of tularemia accounted for only 24% of our cases. We believe the reason for this is that physicians in Missouri are acquainted with the ulceroglandular form and only those patients with atypical or unusual presentations are referred to the Medical Center. Because of this skewed distribution, we would like to call attention to the other forms of tularemia that practicing physicians in Missouri and other endemic areas may encounter.

Our review suggests that glandular tularemia should be considered when a patient has an acute febrile illness accompanied by generalized or isolated adenopathy but without a skin ulceration, as in five of our patients.

Patients with fever, chills, weakness, malaise and fatigue without obvious ulcerative or localized lymphadenopathy may also have tularemia. Nausea, vomiting, anorexia, abdominal pain and diarrhea sometimes accompany these symptoms of typhoidal tularemia. This type is particularly a possible diagnosis when such symptoms persist for four days or more and no obvious etiology has been discovered. This entire symptom complex was found in two of our six patients with typhoidal tularemia. Four patients had no nausea, vomiting, abdominal pain or diarrhea, although they had the other symptoms of the typhoidal form.

The five cases of pulmonary tularemia all presented with fever, chills and a nonproductive cough. Four of the five had pleuritic chest pain as well. Tularemia pneumonia should be entertained as a possibility in the setting of an epidemiologic exposure and the presence of an atypical pneumonia, i.e., no demonstrable organism in the sputum and/or a failure to respond to agents commonly effective in bacterial pneumonias.

The other confirmed clinical syndrome encountered was oropharyngeal tularemia, which accounts for only a small percentage of cases in the literature. This illness usually occurs in children although two of our three patients were adults. The patients present swith a sore throat and fever. On physical examination, an exudative-ulcerative pharyngitis and cervical adenopathy are present. In the endemic area, a patient with such findings who has a negative throat culture or who has not responded to treatment for Group A β-hemolytic streptococci should be suspected of having oropharyngeal tularemia.

The clinical syndrome of oculoglandular tularemia is also uncommon. Only one such patient was diagnosed at UMMC, but there was no serological or cultural confirmation of the disease. Oculoglandular tularemia is characterized by fever, acute conjunctivitis with or without ulceration and pre-auricular lymphadenopathy.

The early diagnosis of tularemia is clinical. Although the organism can be cultured from skin lesions, lymph nodes, blood, sputum or gastric washings, this requires special techniques. *Francisella tularensis* requires supplementation of laboratory media with cystine for growth. Therefore, it rarely grows on ordinary media utilized in clinical laboratories. Innoculation of specimens into animals will also propagate the organism. Furthermore, culture of the organisms in routine laboratories is to be discouraged because of the danger of laboratory personnel contracting the disease.

Ordinary laboratory tests are of little value in making the diagnosis. One helpful clue is a relatively low white blood cell count associated with a toxic, highly febrile illness. White blood cell counts in our patients ranged from 2,800 to 15,200/cu mm, but more than two thirds of these patients had values of $\leq$ 10,000/cu mm.

Radiographically, a pneumonic infiltrate with associated hilar lymphadenopathy should heighten one's suspicion of tularemia. This was seen in only one of our five patients with pneumonary tularemia. Three patients had bronchopneumonic infiltraes without hilar lymphadenopathy and one had a pleural effusion. Radiologic findings reported by others include oval opacities, pleural effusions and cavitation.[17]

The most widely used test for confirmation of the diagnosis or tularemia is an agglutination test utilizing whole killed organisms and the patient's serum. This is a highly sensitive test and rather specific although it occasionally cross-reacts with *Brucella* and *Proteus* OX-19.[18] When this occurs, the homologous serum almost invariably has the highest titer. None of our patients showed cross reaction. A titer of $\geq$ 1:160 plus a compatible illness or, optimally, a four-fold or greater rise in titer is considered diagnostic of tularemia. The titers in our patients ranged from 1:80 to 1:81,920. Height of the titers corresponds with the time of obtaining samples and has no prognostic implications. Unfortunately, the agglutination test does not become positive until the second to third week of illness, offering no diagnostic aid at a time when one would profit most. As previously mentioned, tularemia is a clinical diagnosis at least in the early stages of the disease. Several of the cases found in our review had run the natural course of their disease prior to diagnosis and institution of therapy.

An incompletely explained discovery in their review was the finding of 12 patients who had agglutination titers of $\geq$ 1:160 with no illness compatible with tularemia. In the majority of cases, we were unable to ascertain the reason for the titer having been obtained. Several possible reasons exist for these positive titers. Some of these patients may have had a previous bout of tularemia that was not detected by the attending physician or remembered by the patient. In a follow-up of patients with tularemia, Ransmeier and Ewing found that some patients persist with positive titers of $\geq$ 1:160 for up to 11 years after infection, and low level titers have been documented for as long as 33 years.[19] The possibility that patients may have had an asymptomatic infection also exists. This has been noted by other authors.[20] Finally, the illness may have been so atypical that we were unable to recognize it by our retrospective review of medical records.

The treatment of choice for tularemia is 500 mg of streptomycin every 12 hours for seven to ten days. Other effective therapy includes 2 gm of tetracycline daily in adults for 14 days or 50 mg/kg/day of chloramphenicol for 14 days. Recent evidence indicates that 1.5 mg/kg of gentamicin every eight hours is also effective therapy.[21] Twenty-four of our patients received therapy. Sixteen received streptomycin, seven were given tetracycline and one was treated with both. Patients who were symptomatic at the time of institution of therapy subjectively improved within 24 to 48 hours. Duration of fever ranged between one and six days after beginning antibiotics, with the mean for becoming afebrile being three and one-half days.

Tularemia apparently conveys a high degree of immunity since second attacks are rare. The immunity appears to be primarily cell mediated rather than humoral. Only one of our 25 patients was known to have had documented tularemia in the past.

Untreated, the natural course of tularemia results in the death of 5% to 30% of its victims. The mortality rates correspond to the form of the disease, the higher rates occurring in the more serious forms such as pulmonary and meningeal tularemia. Since 1947, when streptomycin became available, the fatality rate has decreased until it is now less than 1%. Those untreated symptomatic patients who survive tend to have a prolonged illness of one to several months with a relapsing course. There were no fatalities or relapses in our patients.

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Laboratory Evaluation of Acute Pancreatitis

Patients and Methods

One hundred consecutive episodes of acute pancreatitis were studied retrospectively. The patients were identified by a hospital discharge diagnosis of acute pancreatitis associated with signs and symptoms consistent with acute pancreatitis and elevation of serum amylase activity, serum lipase activity or urinary amylase excretion.

Fifty-six episodes occurred in 44 women and 44 episodes in 37 men. The patients ranged in age from 17 to 89 years. The mean age was 56 years.

Precipitating causes included acute alcoholism in 19 episodes, biliary tract stone in 20 episodes and familial disease in three episodes. A clear precipitating event could not be identified in the remaining 58 episodes.

Serum biochemical profiles (calcium, inorganic phosphorus, glucose, creatinine, uric acid, cholesterol, total protein albumin, total bilirubin, alkaline phosphatase activity [ALP], lactate dehydrogenase activity [LD], and aspartate aminotransferase activity [AST]) were done using an SMA 12/60 (Technicon Instruments Corp., Tarrytown, N. Y. 10591). Hemoglobin and white blood cell counts were done using the Coulter Model S. (Coulter Electronics, Inc., Hialeah, Fla. 33014).

Serum amylase activity was determined using the ACA (Dupont Co., Wilmington, Del. 19898). Results obtained by our previous Caraway method[1] were converted to IU/L. Urine amylase excretion was performed on two-hour collections.

Serum lipase activity was determined by a modification of the method of Tietz *et al*[2] which used a six-hour incubation with titration of the liberated fatty acid to pH 10.0.

The values reported are averages of at least three determinations although most of the averages consist of numerous determinations.

Reference intervals, units and means for all determinations are listed in Table 1.

Serum glucose levels were not included because most patients were receiving glucose intravenously.

Results

Serum amylase activity increased within a few hours of the onset of symptoms of acute pancreatitis. It usually peaked at about five times the upper reference value but occasionally reached 20 to 30 times. The activity decreased rapidly after the first day and was generally within the reference interval in three to four days (Fig. 1). The magnitude of the increase did not correlate with the clinical severity of the disease nor was it useful in defining the etiology. Serum amylase activity was increased in 74 of the 91 episodes (81%) in which it was performed.

The rate of urinary amylase excretion peaked at about 15 times the upper reference value and was occasionally elevated 50 times. It remained elevated longer than serum amylase activity, but it usually returned to normal about the fourth or fifth day (Fig. 1). Urinary amylase was increased in 69 of the 74 episodes (93%) in which it was performed.

Serum lipase activity peaked at about five times the upper reference value but occasionally rose to ten times. The increased activity persisted for five to seven days (Fig. 1). Serum lipase activity was increased in 43 of the 52 episodes (83%) in which it was performed. Neither urinary amylase excre-

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Acute pancreatitis is an uncommon and often obscure disease for which the clinical laboratory is usually called upon to confirm or exclude the diagnosis or to forecast the course. The authors studied 100 episodes retrospectively, seeking information that will be helpful in guiding the physician whose patient has acute pancreatitic inflammation. Taken in concert with the clinical findings, the results of certain laboratory tests are useful in patient management.

Dr. Watson and Dr. O'Kell are from the Department of Pathology, St. Luke's Hospital.

TABLE 1

MEAN VALUES FOR SERUM BIOCHEMICAL AND HEMATOLOGICAL PROFILES.

Serum Bilirubin Means Do Not Include Patients with Biliary Tract Stone. Serum Lactate Dehydrogenase Means Do Not Include Patients with Biliary Tract Stone or Hereditary Disease. Serum Alkaline Phosphatase and Aspartate Aminotransferase Means Include only Patients with Unknown Cause.

Test	*Ref. Interval*	*Units*	*Day*				
			1	*2*	*3*	*4*	*5*
S. amylase	5-81	IU/L	465	189	102	59	45
U. amylase	0-14	UH	213	106	47	24	13
S. lipase	0-1.0	U/ML	5.9	2.9	2.4	1.5	1.1
S. calcium	8.5-10.5	MG/DL	9.3	8.6	8.6	8.7	8.8
S. phosphorus	2.5-4.5	MG/DL	3.3	3.1	2.8	2.7	2.6
S. glucose	Most receiving IV glucose						
S. creatinine	0.5-1.3	MG/DL	1.1	0.9	1.1	0.8	0.9
S. uric acid	2.5-8.0	MG/DL	5.9	4.9	5.2	4.5	4.5
S. cholesterol	120-260	MG/DL	219	195	196	199	182
S. total protein	6.5-8.0	G/DL	7.1	6.6	6.4	6.3	6.3
S. albumin	3.4-5.3	G/DL	3.9	3.5	3.0	3.2	3.1
S. total bilirubin	0.2-1.0	MG/DL	0.8	0.9	1.0	0.8	0.8
S. alk. p'tase	30-100	MIU/L	92	82	93	85	95
S. LD	90-200	MIU/L	190	164	191	158	183
S. AST	0-40	MIU/L	100	91	53	50	42
S. sodium	138-147	MEQ/L	136	137	136	136	136
S. potassium	3.5-5.2	MEQ/L	3.9	3.9	4.1	4.1	4.1
S. CO_2 content	24-34	MEQ/L	27	27	26	27	27
S. chloride	94-106	MEQ/L	100	100	100	99	100
Hemoglobin M	13.5-17.0	G/DL	14.9	14.1	13.4	12.9	11.9
F	11.5-15.0	G/DL	13.6	13.4	12.9	12.2	12.0
WBC	5-10x10^3/mm3		10.3	9.9	9.4	10.0	9.0

tion nor serum lipase activity was useful in determining the etiology or the severity of the disease.

On the first day of the episode, serum total bilirubin concentration was elevated in patients with biliary tract stone. It was significantly higher than in patients with alcoholism ($p < 0.005$) or in patients with unknown cause ($p < 0.0005$) (Table 2). Patients with precipitating causes other than biliary tract stone generally had levels of serum total bilirubin within the reference interval. In patients with biliary tract stone, serum total bilirubin remained elevated for at least four days.

On the first day of the episode, serum ALP was elevated in patients with biliary tract stone and alcoholism but was within the reference interval in patients with an unknown etiology. Patients with a biliary tract stone had significantly higher values than those with alcoholism ($p < 0.01$) or an unknown cause ($p < 0.0005$).

Although patients with biliary tract stone had significantly higher serum ALP, patients with alcohol as the precipitating cause did have increased ALP. No trend was noted as to the length of time the ALP remained elevated in patients

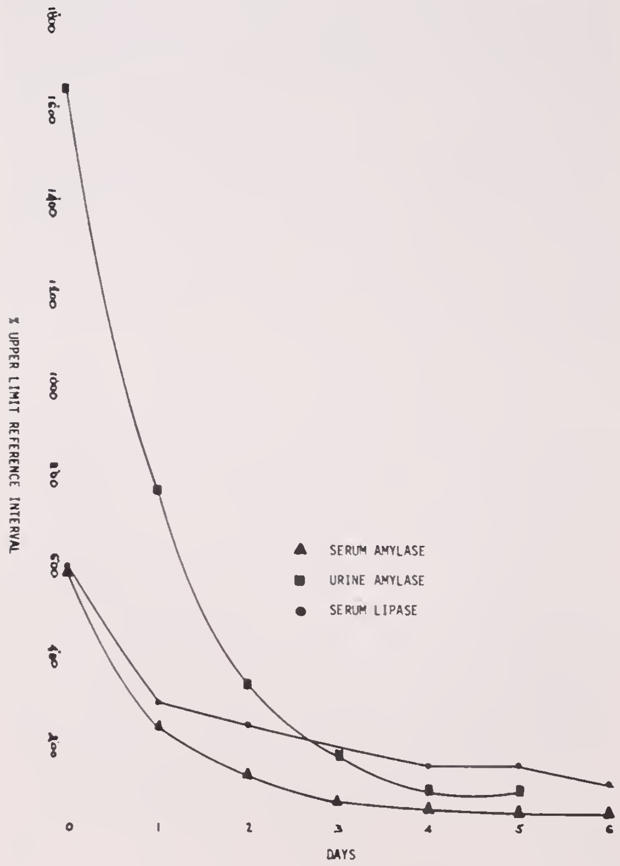

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Fig. 1 Mean values of serum amylase and lipase activity and urinary amylase excretion over six day period.

TABLE 2
MEAN VALUES FOR SERUM TOTAL BILIRUBIN SHOWING SIGNIFICANTLY HIGHER LEVELS IN PATIENTS WITH BILIARY TRACT STONE ($p < 0.005$)

Test	*Ref. Interval*	*Units*	*Days* 1	2	3	4	5
Total bilirubin	0.2-1.0	MG/DL					
Stone			2.4	1.4	1.8	1.2	—
Alcohol			0.9	—	1.2	0.6	—
Idiopathic			0.7	0.8	0.9	0.8	0.8

TABLE 3
MEAN VALUES FOR SERUM ALKALINE PHOSPHATASE ACTIVITY SHOWING SIGNIFICANTLY HIGHER LEVELS IN PATIENTS WITH BILIARY TRACT STONE ($p < 0.005$)

Test	*Ref. Interval.*	*Units*	*Days* 1	2	3	4	5
Alkaline phosphatase activity	30-100	MIU/L					
Stone			190	171	—	151	—
Alcohol			108	—	116	—	—
Idiopathic			92	82	93	85	95

TABLE 4
MEAN VALUES FOR ASPARTATE AMINOTRANSFERASE ACTIVITY SHOWING INCREASED LEVELS IN ALL PATIENT GROUPS, BUT HIGHER LEVELS IN PATIENTS WITH BILIARY TRACT STONE

Test	*Ref. Interval.*	*Units*	*Days* 1	2	3	4	5
Aspartate aminotransferase activity	0-40	MIU/L					
Stone			237	116	47	38	24
Alcohol			140	—	185	107	—
Idiopathic			100	91	53	50	42

with biliary tract stone compared with patients in the alcohol group, although not enough second through fifth day levels were done to make the results significant (Table 3).

Serum AST was elevated in nearly all the patients in which it was measured on the first day of the episode regardless of the precipitating cause. In patients with biliary tract stone, AST was significantly higher than in the idiopathic group ($p < 0.0005$). The difference was not significant between patients with stone and those with alcohol induced disease.

AST activity in patients with alcohol as a precipitating cause was not significantly higher than in patients with unknown cause. AST activity did remain elevated longer in the alcohol group than in the biliary tract stone group (Table 4).

LD was slightly but not significantly elevated in patients with biliary tract stone on the first day of the episode. LD activity remained elevated for five days in patients with biliary tract stone.

Serum calcium levels were usually within the reference intervals at the time of diagnosis. Four patients developed serum calcium levels below 7.0 mg/dl during the first three days of their episode. Two patients had biliary tract stone, one alcohol and one idiopathic as the precipitating cause. Three had muscle twitching and the fourth had a cardiac dysrhythmia.

Serum creatinine, sodium, potassium, carbon dioxide content and chloride were usually within the reference intervals at the time of diagnosis of acute pancreatitis and remained so during the episode (Table 1).

Serum inorganic phosphorus, uric acid, cholesterol, total protein, albumin and hemoglobin were usually within the reference intervals at the time of diagnosis but decreased slightly during the episode although remaining within reference intervals (Table 1).

Two patients, a 79-year-old woman and an 84-year-old man, died of pneumonia.

DISCUSSION

The most common presenting symptom of acute pancreatitis is abdominal pain. Unfortunately, there are numerous causes of abdominal pain other than pancreatitis, many of which cause elevated serum levels of pancreatic enzymes.[3, 4] In some cases, this makes the diagnosis of acute pancreatitis extremely difficult.

Serum amylase and lipase activity, and urinary excretion of amylase should be done as a group when the diagnosis of pancreatitis is considered.[3, 4] This will minimize the likelihood of an unconfirmed diagnosis.

Serum amylase activity increases rapidly in acute pancreatitis but usually returns to within the reference interval in several days.[3] Amylase excretion in the urine appears to be a more sensitive index of pancreatic disease than serum amylase activity[5, 6] and appears to be elevated to higher levels than serum lipase or amylase.[6] Urinary amylase levels may remain elevated after serum levels have returned to normal.[5, 6] Serum lipase activity remains elevated longer than serum amylase activity and urinary amylase excretion[3, 7] although this claim has been disputed.[8] This can be important in cases of subsiding pancreatitis when patients do not present for several days after the onset of symptoms. Serum amylase levels will often be within the reference interval while serum lipase activity and urinary amylase excretion are still elevated.

Neither amylase nor lipase activity was useful in determining the severity[3] of the illness and was of no help in determining the precipitating cause. We suggest that once the diagnosis is made, it is not useful to follow the patient with serial determinations. Repeating the serum amylase after the episode may be useful in detecting prolonged elevations which may be due to pseudocyst formation[3, 4] or pancreatic carcinoma.[9]

Serum bilirubin, ALP and AST levels may be helpful in determining the precipitating cause of the pancreatitis.

In our study, bilirubin and ALP were significantly higher in patients with biliary tract stone. Some patients with alcohol as the precipitating cause had elevated ALP but not to the degree of patients with biliary tract stone. AST was significantly higher in the biliary tract stone group than in the idiopathic group, but not the alcohol group. It was not as useful as bilirubin and ALP in determining the underlying cause. A combination of ALP greater than 190 IU/L, AST greater than 240 IU/L and total serum bilirubin greater than 2.5 mg/dl predicted biliary tract stone as the precipitating cause of acute pancreatitis with $p < 0.005$. These findings are in general agreement with those of Olsen[10] but did not correlate with those of McMahon and Pickford[11] who advocate the use of AST for diagnosis of biliary tract stone.

Symptomatic hypocalcemia with serum calcium levels below 7.0 mg/dl occurred in 4% of our patients by the second or third day. Several possible mechanisms have been suggested for hypocalcemia in acute pancreatitis. Calcium soaps may be deposited in retroperitoneal and peritoneal areas from fat necrosis.[4, 12] Also, glucagon released from the pancreatic islet cells in patients with acute pancreatitis may produce the fall in serum calcium.[12, 13] It has also been suggested that hypomagnesemia, which is commonly found in alcoholics, may lead to loss of calcium. Several authors suggest that a serum calcium level below 7.0 mg/dl is a poor prognostic sign and may indicate severe pancreatitis[12, 14] although all four of our patients with calcium levels less than 7.0 mg/dl survived. Serum calcium levels should be monitored for the first three days of the episode.

Although elevations in white blood cell count, hemoglobin and hematocrit have been reported,[10] we found no significant increase. Electrolyte levels were also usually within normal limits.

SUMMARY

In patients with suspected acute pancreatitis, serum amylase and lipase activity and urinary excretion of amylase should be done as a group to minimize the likelihood of an unconfirmed diagnosis. It is probably not useful to follow the patient with serial determinations once the diagnosis has been confirmed. Repeating the serum amylase after the episode may be useful in detecting prolonged elevations due to pancreatic pseudocyst or carcinoma.

ALP and total bilirubin were useful in detecting patients with biliary tract stone as the etiology of the pancreatitis. Calcium levels should be performed on the first three days following the onset of the episode. Hypocalcemia occurred in 4% of our patients and is thought to be a poor prognostic sign.

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President's Message

Charity, Welfare and Power

Charity did begin at home. Charitable acts probably began before even the first crude shelters were erected. In the true and simple definition of that word, charity: . . . A love for one's fellow being in thought and in action . . . , probably occurred the first time two beings worked together for the good of the other.

Richard V. Bradley, M.D.

Within the family unit, allowing for a certain amount of aberration and or mutation, living for the good of each other and the advancement of all has become its own symbol. Tradition has dictated that the finite resources of the family unit would be shared appropriately. Another family tradition requires that each member contribute their efforts to improve the family lot, and practice moderation and restraint in the use of the available resources. The needs of each family member are usually known better within than without the unit.

A combination of the factors which hold the family together is directly responsible for certain acts of an ultimate charity known during times of hardship and privation. Self removal to certain destruction, by the aged and the infirm is recorded as being not only accepted but revered in many static cultures in which the finite limits of life support are known and are forced upon the family. Even the aged and the infirm can exercise such a sacrifice out of a sense of affection rather than as a form of forced tribute when the family is placed in a vulnerable situation.

The coalescence of several family units into a tribe, or clan, is a safeguard against vulnerability. Such coming together provides a greater degree of stability but requires an increasing degree of compromise where interpersonal relationships are concerned. Individual needs become less well known. Individual productivity is no longer so easily observed; the same is true with moderation and self restraint. Charitable acts are subject to an increasing amount of guess work. These acts also become more visible to outside interpretation without knowledge leading to what is commonly called *Gossip*. Still, at the tribal or clan level, the donor and the recipient can respect each other, and both know that the charitable act or service, and its cost to the tribe or clan, remain visible and in focus.

Tribes and clans increase their stability by amalgamation, either voluntarily or as a result of combat, into larger units — baronial, ducal or national. Such organizations usually result in increased capability of collection, transportation, storage and sharing of supplies. Were all components equitable, productive and responsible, a very large Utopian family unit in Macrocosm would result! Alas, greed, misunderstanding, corruption and that occasional bad neighbor creep into the script.

A large social unit such as a nation must have power to flourish, power to provide for the common defense, power to promote the general welfare (or charity); power to hold the support of at least a majority of its population empowered to dictate policy. By separating a service such as charity from the expense of that service, enough modern liberal governments have converted charitable acts into units of Socioeconomic power. Carried to the imaginative limit, charity could become the constant in the equation $E = MC^2$. With all due apology to Dr. Einstein, everything is, after all, relative.

What began as an affectionate act between two beings for the good of each other (charity) is being downgraded by the power structure to be associated with a poor term — "demeaning." At the same time, society is being told that it is good to receive all these charitable acts from a benevolent bureaucracy. Gradually, it has become more difficult for the recipient, or the recipient's family, to measure a charitable act against the increasing expense which the act places upon that same social structure.

(Continued on page 89)

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MSMA Auxiliary

A Day at the State Legislature

The MSMA Auxiliary will have a day at the Missouri Legislature on March 24. Auxilians from all over the state will meet in Jefferson City at 9:30 AM for a visit to the House and Senate in session.

The day at the state capitol brings members into direct contact with legislators for personal exchange of thoughts, concerns and opinions. The program objective is to become familiar with the process of state government, the people involved therein and how auxiliary members can work with and through state government to get desired results.

Personal contact with legislators will come at lunch time when auxiliary members will invite their legislators to have lunch with them at the Governor Hotel. During this social time, legislators and auxiliary members will become better acquainted and get to know each other's viewpoints on different issues.

After lunch, a tour of interesting landmarks in Jefferson City is planned. This will wind up the day by 3 PM so that auxilians will be able to get back home before dinner.

It is our hope that we will have good representation from all across Missouri. Please encourage your spouse to join us. We want our state legislators to know that Missouri doctors' spouses are informed about and interested in legislation, especially that affecting the delivery of health care in the state.

Mrs. Donald A. Fakhoury
President

Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

123rd Annual Session

Chase-Park Plaza Hotel, St. Louis April 9-12, 1981

THURSDAY, APRIL 9

8:00 AM Registration of Delegates. Regency Room.
8:00 AM MSMA Committee on the Impaired Physician Breakfast. Georgian Room.
10:30 AM House of Delegates, Opening Session. Khorassan Room.
12:00 NOON Jackson County Medical Society Luncheon. Empire Room.
12:00 NOON St. Louis Metropolitan Medical Society Luncheon. Tiara Lounge North and South.
1:00 PM Reference Committee Meetings.
  Coach Room
  Colonial Room
  Palladian Room
  Park Room
  Stockholm Room
6:30 PM Missouri State Surgical Society Board of Directors. Cocktails and Dinner. Lido Room.
6:30 PM Missouri Women Physicians. Cocktails and Dinner. Mr. Sam's.
6:30 PM MSMA Auxiliary Auction. Chase Club.

FRIDAY, APRIL 10

7:00 AM MSMA Councilor District Breakfasts.
District No. 5, Park Room.
District No. 6, Palladian Room.
District. No. 8, Georgian Room.
District No. 9, Lacquer Room.
District No. 10, Embassy Room.
7:15-
11:00 AM Complimentary Coffee and Rolls. Regency Room.
7:30 AM Commission on Interspecialty Medicine Breakfast. Lido Room.
8:00 AM Registration. Regency Room.
8:30 AM Missouri University Board of Directors. Breakfast and Meeting. Chippendale Room.
9:00-
10:30 AM General Session. Khorassan Room.
9:00-
10:30 AM *"How Much Will Medical Practice Change in the 1980s?"*
Speaker: Eli Ginsberg, Ph.D., Economist, Columbia University, New York, N.Y.
10:30-
11:00 AM Intermission to view exhibits.
11:00 AM-
12:00 NOON *"Infectious Diseases of the Oral Cavity."* Coach Room. Speaker: Roy S. Rogers, III, M.D., Consultant in Dermatology, Mayo Clinic, Associate Professor of Dermatology, Mayo Medical School, Rochester, Minn.
Moderator: Larry Millikan, M.D., Columbia
Sponsored by the Missouri Dermatological Society.
11:00 AM-
12:30 PM *"Symposium on Microsurgery."* Lido Room.
Moderator: George Tucker, M.D., St.Louis
Sponsored by the Missouri State Surgical Society
11:00 AM-
12:30 PM *"Tuberculosis: United States and Missouri."* Palladian Room.
Speaker: Laurence S. Farer, M.D., Director of Tuberculosis Control Division, Communicable Disease Center, Atlanta, Ga.
Annual Charles A. Brasher, M.D. Lectureship.
Moderator: James R. Wiant, M.D., St. Louis.
Sponsored by the Missouri Thoracic Society.

11:00 AM-
12:30 PM "*Orthoscopy*." Colonial Room.
Diagnostic
Surgical Technique
Speakers: Lawrence G. Evans, M.D., St. Louis. Robert Burdge, M.D., St. Louis.
Sponsored by the Missouri Orthopaedic Association.

11:00 AM-
12:30 PM *Scientific Session*. Sponsored by the Missouri Society of Internal Medicine. Stockholm Room.
11:00 "*Practical Management of Acute Myocardial Infarction*." Speaker: Allan S. Jaffe, M.D., Assistant Professor of Medicine, Washington University School of Medicine, St. Louis.
11:45 "*Newer Concepts in CPR*."
Speaker: Allen S. Jaffe
Moderator: Peter G. Tuteur, M.D.

12:00 NOON Jackson County Medical Society Luncheon. Mr. Sam's.

12:30-
2:00 PM Missouri University Medical Alumni Luncheon. Tiara Room.

12:30 PM Missouri Thoracic Society Luncheon. Lucas Place.

1:00-
4:00 PM MSMA Committee on the Impaired Physician Confronters Meeting. Venetian Room.

1:00-
5:00 PM "*Short Audiovisual Films on Movement Disorders*." Discussion after each film. Georgian Room.
Moderator: Jo-Ellyn M. Ryall, M.D., St. Louis.
Sponsored by the Missouri Psychiatric Association and Sandoz Drug Company.

1:00-
4:00 PM Missouri Chapter, American College of Emergency Physicians. Business meeting, general discussion and election of officers. Tiara Lounge North.

2:00 PM St. Louis Metropolitan Medical Society Caucus. Starlight Roof.

2:00-
3:30 PM "*The Importance of Participating in Organized Medicine: How It Happened in Little Rock*." Tiara Lounge South.
Speaker: Albert S. Koenig, M.D., Ft. Smith, Ark.
Sponsored by the Missouri Society of Pathologists.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri Society of Internal Medicine. Stockholm Room.
2:00 "*Outpatient Management of Chronic Obstructive Pulmonary Disease*."
Speaker: Peter G. Tuteur, M.D., Associate Professor of Medicine, Washington University School of Medicine, St. Louis.
2:45 "*Asbestos Induced Disease*."
Speaker: Peter G. Tuteur, M.D.
Moderator: Peter G. Tuteur, M.D.

2:00-
3:00 PM "*Antibiotics and Surgery — When, What and How Much*." Lido Room.
Moderator: Melvin C. Kasten, M.D., Cape Girardeau
Business meeting to follow Scientific Session.
Sponsored by the Missouri State Surgical Society.

2:00-
3:30 PM "*Cancer Screening and Early Detection*." Lacquer Room.
Speaker: Ned D. Rodes, M.D., Director, Cancer Research Center, Columbia.
Sponsored by the American Cancer Society, Missouri Division, Inc.

2:00-
4:00 PM *Scientific Session*. Sponsored by the Missouri Dermatological Society. Empire Room.
2:00 "*Systemic Corticosteroid Therapy*."
Speaker: Roy S. Rogers, III, M.D., Consultant in Dermatology, Mayo Clinic, Associate Professor of Dermatology, Mayo Medical School Rochester, Minn.
2:30 "*Immune Complex Diseases*."
Speaker: Russell P. Hall, M.D., Research Associate, National Institute of Health, Bethesda, Md.
Moderator: F. Anthony Thomas, M.D., Kansas City
3:15 "*How I Treat Common Dermatosis*." Clinical Panel.
Moderator: Gary A. Dyer, M.D., St. Joseph

3:00 PM *Discuss the Issues* with your AMA Delegates. Swedish Room.

3:00-
4:00 PM Missouri State Medical Foundation Annual Meeting. Khorassan Room.

3:30 PM Intermission to view exhibits.
4:00 PM Missouri Dermatological Society Board Meeting. Empire Room.
4:00 PM **HOUSE OF DELEGATES, SECOND SESSION.** Khorassan Room.
5:00-
6:30 PM Reception Honoring Incoming MSMA Auxiliary President. Hunt Room.
6:00 PM Reference Committee Meetings.
6:30 PM Missouri Psychiatric Association. Cocktails and Dinner. Empire Room.
"The Relationship of Government to the Practice of Psychiatry."
Speaker: Robert Campbell, Jr., M.D., Vice-President, American Psychiatric Association, Medical Director of Gracie Square Hospital, New York, N.Y.
6:30 PM Missouri State Surgical Society. Cocktails and Dinner. Lido Room.
6:30 PM Missouri Society of Pathologists. Cocktails and Dinner. Georgian Room.
7:00 PM Missouri Dermatological Society. Cocktails and Dinner. University Club.

SATURDAY, APRIL 11

7:00 AM Councilor District No. 10 Breakfast. Embassy Room.
7:30 AM MSMA Auxiliary Public Affairs Breakfast. Chase Club.
7:30 AM Missouri Ear, Nose and Throat Association Breakfast and Business Meeting. Chippendale Room.
7:30 AM Missouri Society of Anesthesiologists Continental Breakfast. Stockholm Room.
7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast. English Room.
8:00 AM Registration. Regency Room.
8:00-
11:00 AM Complimentary Coffee and Rolls. Regency Room.
8:30-
10:30 AM *Scientific Session*. Sponsored by the Missouri Society of Anesthesiologists. Stockholm Room.
8:30-
12:00 NOON *"Endorphins, Opiate Receptors, Epidural Morphine."* Stockholm Room.
Speaker: Harold Carron, M.D., University of Virginia, Charlottesville, Va.
9:15 *"Newer Aspects of CPR."*
Speaker: Arnold Sladen, M.D., University of Pittsburgh, Pittsburgh, Pa.
10:00 Coffee Break.
10:30 *"Anesthesia for the Patient with Ischemic Heart Disease Under Non-Cardiac Surgery."*
Speaker: John Tinker, M.D., Mayo Clinic, Rochester, Minn.
11:15 Panel Discussion.
Moderator: Larry Cobb, M.D., St. Louis
Sponsored by the Missouri Society of Anesthesiologists.
9:00 AM Missouri Dermatological Society Clinical Session at Wohl Clinic. 5th Floor.
9:00-
10:30 AM *"Understanding Radial Karatotomy, Part I and Part II."* Tiara Lounge North.
Speaker: Ronald A. Schachar, M.D., Dennison, Tex.
Moderator: Edward Plowman, M.D., Hannibal
Scientific Session sponsored by the Missouri Ophthalmological Society, Inc.
9:00-
10:30 AM *Scientific Session*. Sponsored by the Missouri Ear, Nose and Throat Association, Inc. Empire Room.
Speaker: Eugene N. Myers, M.D., F.A.C.S., Professor and Chairman, Department of Otolaryngology, University of Pittsburgh School of Medicine, Eye and Ear Hospital, Pittsburgh, Pa.
1. *"Cervical Lymphadenopathy: Prognosis in Head and Neck Cancer."*
2. *"Treatment and Current Concepts of Inverting Papilloma."*

Moderator: William H. Friedman, M.D., St. Louis.
9:00-
10:30 AM *Scientific Session*. Sponsored by the American Heart Association, Missouri Affiliate, Inc. Lucas Place.
1. *Cardiac Rehabilitation for the Patient."*
2. *"Physical Fitness for the Physician."*

Speaker: George Gura, M.D., Mid-America Heart Institute, Kansas City.
Moderator: Ben D. McCallister, M.D., Kansas City

(Continued on page 87)

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Final classification of the less-than-effective indications requires further investigation.

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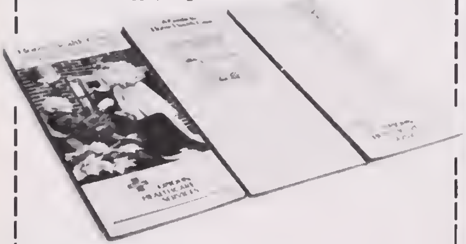

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9:00-
11:00 AM *Scientific Session*. Sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics. Lido Room.

Speaker: Ronald B. Heberman, M.D., Chief of Laboratory of Immune Diagnosis, National Cancer Research, Bethesda, Md. 20205.

"Natural Killer Cells and Their Possible Roles in Defense Against Cancer."

"Immunodiagnostic Tests in Cancer."

Moderator: George C. Olive, M.D., Neosho.

9:00-
10:30 AM *"Low Birthweight Infant – Obstetrician and Neonatologist."* Tiara Room.

Speakers: William Kuennen, M.D., Perianatologist, Cardinal Glennon Hospital, St. Louis.

William Ott, M.D., St. Louis University School of Medicine and St. Mary's Hospital, St. Louis.

10:30-
11:00 AM Coffee Break.

11:00-
11:30 AM *"Management of Pre-term Labor."*

Speaker: Michael Gast, M.D., Washington University School of Medicine, St. Louis.

11:30 AM
12:00 NOON *"Gynecologic Malignancy."*

Speaker: Tom Morgan, M.D., Washington University School of Medicine, St. Louis.

12:00 NOON-
12:30 PM *"The Evaluation of Infertility."*

Speaker: David Keller, M.D., Washington University School of Medicine, St. Louis.

Moderator: George J. Fuchs, M.D., Columbia.

Scientific Session. Sponsored by the Missouri OB-GYN Society.

9:30 AM-
12:00 NOON *"Massage in Management of Edema and Other Conditions."* Georgian Room.

Speaker: Keith Stillwell, Ph.D., M.D., Professor of Rehabilitation Medicine, Mayo Clinic, Rochester, Minn.

10:30 Brief Clinical Presentations.

Scientific Session. Sponsored by Physical Medicine and Rehabilitation.

10:00-
11:30 AM Missouri Radiological Society Board of Directors meeting. Venctian Room.

10:30 AM Intermission to view exhibits.

10:30 AM-
5:00 PM Missouri Ophthalmological Society, Inc. All Day Meeting. Tiara Lounge North.

11:00 AM-
12:30 PM *"Diabetes."* Empire Room.

Moderator: William C. Allen, M.D., Columbia.

Scientific Session. Sponsored by the Missouri Academy of Family Physicians.

11:30 AM Missouri Radiological Society Board of Directors Luncheon. Venetian Room.

12:00 NOON Missouri State Neurological Society Board Meeting. English Room.

12:00 NOON Physical Medicine and Rehabilitation. Luncheon, Business and Board Meeting. Lucas Place.

12:00 NOON-
2:00 PM Missouri Society of Anesthesiologists. Luncheon and Business Meeting. Coach Room.

12:00 NOON Missouri Ophthalmological Society, Inc. Luncheon. Tiara Lounge South.

12:00 NOON Missouri State Allergy Association Luncheon. Embassy Room.

12:30 PM Student Councilor Luncheon. Lacquer Room.

12:30 PM Fifty-Year Club Luncheon. Palladian Room.

12:30 PM Missouri OB-GYN Society Luncheon. Tiara Room.

1:00-
4:00 PM *"Selected Aspects of Chest Radiology."* Sponsored by the Missouri Radiological Society. Colonial Room.

1:00 *"Diagnosis of Pulmonary Embolism by Ventilation Profusion Cyntography."*

Speaker: Dan R. Biello, M.D., Associate Professor, Washington University, St. Louis.

1:40 Discussion

1:45 *"Selected Applications of Computed Tomography of the Chest."*

Speaker: Stuart Sagel, M.D., Professor of Radiology, Washington University, St. Louis.

2:25 Discussion.

2:30 Break.

2:45 *"Current Status of Radiation Treatment of Bronchogenic Carcinoma."*
Speaker: Carlos Perez, M.D., Washington University, St. Louis.
Moderator: McDonald B. Logie, M.D., St. Louis.
3:25 Discussion.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri Academy of Family Physicians. Empire Room.
1. *"Advantages of Early Diagnosis of Cystic Fibrosis."*
2. *"Pediatric Rheumatology."*
Moderator: William C. Allen, M.D., Columbia..

2:00-
3:30 PM Panel Discussion: *"Issues of Cost Effectiveness in Medical Health Care."* Georgian Room.
Moderator: Lawrence C. Evans, Kansas City.
Sponsored by the Missouri State Surgical Society.

2:00-
4:00 PM *Scientific Session* sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics. Lido Room.
Speaker: Russell Hall, M.D., National Institute of Health. Dermatology Branch, Bethesda, Md.
"Circulating Immune Complexes and Their Clinical Significances."
"Clearance of Circulating Immune Complexes in the Diseased and Healthy Individual."
Moderator George C. Olive, M.D., Neosho.

2:00-
4:00 PM MOMEDICO Shareholders Meeting. Park Room.

2:00-
4:15 PM *Scientific Session*. Sponsored by the Missouri Society of Anesthesiologists. Stockholm Room.
2:00 *"Obstetrical Anesthesia in Labor — Is It Beneficial to Mother and Fetus?"*
Speaker: Sam Hughes, M.D., University of California, San Francisco, Calif.
2:45 *"A New Inhalation Anesthesia" — "Forane."*
Speaker: Harry Cohen, M.D., Director of Obstetrical Anesthesia, University of Miami, Miami, Fla.
3:30-
4:15 *Questions and Answers.*
Panelists: Sam Hughes, M.D
Harry Cohen, M.D
William Ott, M.D
Moderator: John F. Schweiss, M.D., St. Louis

3:30-
4:15 PM Business Meeting of Membership of Missouri Radiological Society. Colonial Room.

4:00-
4:30 PM MOMEDICO Board of Directors Meeting. Park Room.

4:00 PM Missouri State Allergy Association Business Meeting. Lido Room.

5:00-
6:30 PM Missouri University Alumni Reception. Empire Room.

5:00-
6:30 PM Washington University Alumni Reception. Stockholm Room.

5:00-
6:30 PM St. Louis University Alumni Reception. Tiara Room.

6:30 PM MSMA Social Hour. Chase Club.

7:15 PM MSMA Annual Banquet. Chase Club.

SUNDAY, APRIL 12

7:30 AM **House of Delegates Breakfast Meeting.** Khorassan Room.

Preliminary Program — 56th Annual Convention

MSMA AUXILIARY

Chase-Park Plaza Hotel, St. Louis **April 9-11, 1981**

Thursday, April 9

10:00 AM-4:00 PM Registration and Information. Starlight Roof.
10:00 AM Auxiliary Report to the MSMA House of Delegates.
Mrs. Donald Fakhoury, President
12:00 NOON Finance Committee Meeting. President's Suite.
1:00-6:00 PM Auction items to be taken to Chase Club.
3:00 PM Pre-Convention Board Meeting. Starlight Roof.
6:30 PM Third Annual Benefit Auction of the AMA-ERF and MSMF. Chase Club.

Friday, April 10

7:15-11:30 AM MSMA Complimentary Coffee and Rolls.
8:00 AM-NOON Registration and Information. Starlight Roof.
8:00 AM General Assembly-Business Meeting. Starlight Roof.
Keynote Address: Mrs. Harry S. Dvorsky, San Leandro, Calif., President-Elect of the AMA Auxiliary.
12:00 NOON Bus to Awards Luncheon at the Junior League.
5:00 PM-6:00 PM Reception honoring Mrs. Jerry Meyer, MSMA Auxiliary President-Elect. Hunt Room.
6:30 PM Bus to The Goldenrod on The Mississippi for dinner and show.

Saturday, April 11

7:30 AM Public Affairs Breakfast.
8:00 AM-NOON Registration and Information. Starlight Roof.
9:00 AM General Assembly — Workshop. Starlight Roof.
Greetings from Southern Medical Association, Mrs. Charles Prater, Jellico, Tenn., President.
12:00 NOON Installation Luncheon. Zodiac Room.
2:00 PM Post-Convention Board Meeting. Starlight Roof.
6:30 PM Social Hour. Chase Club.
7:15 PM MSMA Annual Banquet. Chase Club.

President's Message

(Continued from page 81)

Charity has become welfare. The true needs of the recipient are now less well known to the agency which distributes the welfare. Thus, each welfare situation or *unit of socioeconomic power* becomes less visible and, at the same time, relatively more expensive.

The most complex of social structures has to have a limit to available resources. Deficit spending is limited by the availability of credit or consumed by the loan interest.

When Welfare expenses outweigh expenses for the cost of defense, and the capability of production, then the end of such social structure becomes visible or eminent.

With the appearance of possible hardship or privation, it seems inevitable that charity (or welfare) becomes an early casualty. The aged and the infirm follow close behind so called enrichment programs. They may have to give up items which they truly need and step backward to a less complex social level. They may have to be more objective about their needs and priorities.

As the unit of socioeconomic power returns toward the family unit or toward the local government from the national, the visibility improves. Better can the donor tend to the true needs of the recipient; Better can the recipient evaluate the service and the attendant cost for that service; Better can mutual respect be re-established between recipient of a charitable act and the donor.

Once again, we can see that charity — or love for one's fellow being in thought and deed — is a respectable and warm interaction. Abraham Lincoln put it as follows:

"With malice toward none; with charity toward all" . . . Charity could return home.

Transactions of the Missouri State Medical Association

Fifth Interim Session

November 1-2, 1980

This report of the 1980 MSMA Interim Session held in Joplin is designed to provide each member with a concise but complete summary of actions taken by the House of Delegates. The minutes of this session are available to members in the MSMA Headquarters Office in Jefferson City.

Resolutions

Resolution #1 — Meetings of the MSMA House of Delegates

(Introduced by Jackson County Medical Society)

Substitute Resolution #1

Resolved, that Article VI, Section 1 of the MSMA Constitution be amended to read as follows:

The Association shall hold an annual Spring session of the House of Delegates at a place fixed by the House of Delegates, the time of which shall be fixed by the Council.

(Substitute Resolution #1 was adopted.)

Resolution #2 — Assessment for Student Expenses at MSMA Meetings

(Introduced by Boone County Medical Society)

Substitute Resolution #2

(The following portions of Substitute Resolution #2 were adopted.)

Resolved, that the MSMA pays the reasonable expenses for the student councilor and student vice-councilor to attend all council meetings and the annual and interim sessions; and be it further

Resolved, that the MSMA pays the reasonable expenses of each of the medical school component society delegates to the annual and interim sessions.

(The following portion of Substitute Resolution #2 was referred to the MSMA Council for further study.)

Resolved, that an assessment of $5.00 per year on each active member of the Association shall be applicable for a three-year period beginning in 1981; junior members and student members will be exempt from this assessment. This shall be reviewed before the end of the third year to determine whether dues of the Association and the monies collected therefrom shall be used for the purposes as follow:

Resolution #3 — Ad Hoc Committee on the Chronically Mental Ill

(Introduced by Barbara Buchanan, M.D. and Richard Quick, M.D.)

Resolved, that the MSMA with the assistance of Missouri Psychiatric Association establishes an ad hoc committee to review the suggestions and recommendations from the 1979 AMA Workshop on the Chronic Mental Patient in the community and look for ways of implementing these recommendations, and be it finally

Resolved, that this committee also be concerned with developing physician education programs at the state level regarding the chronically mentally ill for the physicians of the state of Missouri.

(Resolution #3 was adopted.)

Resolution #4 — Fees of the Board of Registration for the Healing Arts

(Introduced by Jasper County Medical Society)

Resolved, that the MSMA supports statute changes allowing reasonable fees for new and renewed licenses, and be it further

Resolved, that such changes allow the Board to charge reasonable fees for tests, reciprocity processes and other duties carried out by the Board, and be it further

Resolved, that such fees be retained by the Board in performance of its duties.

(Resolution #4 was adopted.)

Resolution #5 — Toxic Waste Disposal Within the State of Missouri

(Introduced by Bruce Stoliar, M.D.)

Substitute Resolution #5

Resolved, that the Commissions on Public Affairs and Interspecialty Medicine shall meet jointly to consider the statewide problem of disposal of toxic waste and to formulate scientific advice on this problem, and be it further

Resolved, that based upon the recommendations of these commissions, the Association shall offer on a timely basis this scientific advice to the Department of Natural Resources, the Governor's Office, the Missouri General Assembly and other state agencies or offices attempting to deal with this problem, and be it further

Resolved, that the MSMA stands firmly opposed to Proposition No. 11.

(Substitute Resolution #5 was adopted as amended.)

Resolution #6 — Capital Punishment by Medical Lethal Injection

(Introduced by Bruce Stoliar, M.D.)

Resolved, that the MSMA takes a stand in opposition to the enactment of any future law providing for legal execution by physicians performed injections of lethal substances, and be it further

Resolved, that physician members of the MSMA continue to limit their participation in capital punishment to providing for certification of death following the carrying out of the death penalty.

(Resolution #6 was postponed indefinitely.)

Resolution #7 — Physician Advertising

(Introduced by Bruce Stoliar, M.D.)

Resolved, that the MSMA House of Delegates adopts the following "Guidelines of Physician Advertising" which state that physician advertising may contain:

1. Physician's name or corporation if applicable.
2. Practice listing (specialty affiliations).
3. Year of birth.
4. Medical school attended; year of graduation.
5. Post-medical school training (internship, residency).
6. Board eligibility or board certification.
7. Membership on hospital medical staffs.
8. Availability (office hours, weekends, evenings, etc.)
9. Phone number(s) of office(s).
10. Participation in public programs (Medicaid, Medicare assignments, Blue Shield, etc.).
11. Fees or range of fees may be stated for any procedure if completely defined, etc.
12. Membership in medical societies; and be it further

Resolved, that these guidelines be furnished the Secretary of each MSMA Component Medical Society, published in Missouri Medicine, placed in the MSMA Policy Manual and sent to the Missouri State Board of Registration for the Healing Arts.

(Resolution #7 was not adopted.)

Resolution #8 — PKU-T4 Testing in Newborns

(Introduced by the MSMA Council)

Substitute Resolution #8

Resolved, that reasonable and appropriate standards be set and any duly qualified laboratory which can meet these standards should be allowed to perform those tests.

(Substitute Resolution #8 was adopted.)

Resolution #9 — Compulsory Rabies Vaccination

(Introduced by Cole County Medical Society)

Substitute Resolution #9

Resolved, that the Missouri State Medical Association supports legislation which would embrace the following requirements:

1. Compulsory rabies vaccination of owned dogs, cats and other susceptible pets.
2. The stringent confinement of animals which are suspected of having transmitted the disease to humans for a minimum of 10 days.
3. Establishment of an effective method of obtaining and recording information on rabies vaccination activity in the state.

(Substitute Resolution #9 was adopted.)

Resolution #10 — Independent Nurse Practitioners Under CHAMPUS

(Introduced by the MSMA Council)

Substitute Resolution #10

Resolved, that the MSMA informs the U.S. Department of Defense that any regulations allowing "nurse practitioners" to provide direct health care to CHAMPUS beneficiaries without referral or supervision of a physician would result in lowering of the health care standards of the CHAMPUS Program.

(Substitute Resolution #10 was adopted as amended.)

Resolution #11 — Health Policy for Missouri and the U.S.

(Introduced by the MSMA Council)

Resolved, that the Missouri State Medical Association, working with allied health associations, continues to develop priorities necessary to formulate, and publish, an ongoing formal Health Policy for Missouri, and be it further

Resolved, that the delegates of the Missouri State Medical Association petition the delegates of the American Medical Association to formulate, publish and maintain an ongoing National Health Policy for available health and sickness care in the United States and its territories.

(Consideration of Resolution #11 was postponed until the 1981 MSMA Annual Session.)

Resolution #12 — Standard Immunization Form

(Introduced by Jackson County Medical Society)

Resolved, that the Missouri State Medical Association endorses and promotes the use of the standard immunization record form developed by the National Immunization Record Workshop, and be it further

Resolved, that the Missouri State Medical Association takes appropriate action to encourage state and local health departments in Missouri to adopt the aforementioned form as an official document.

(Resolution #12 was adopted.)

Resolution #13 — Health of School Teachers

(Introduced by Jackson County Medical Society)

Resolved, that the MSMA Council appoints an ad hoc committee to develop recommended minimum standards for the identification of health problems related to the risk of contagious diseases in all school personnel in our school systems in Missouri.

(Resolution #13 was adopted as amended.)

Resolution #14 — Missouri Poison Center Network

(Introduced by St. Louis Metropolitan Medical Society

Substitute Resolution #14

Resolved, that the Missouri State Medical Association goes on record as supporting the concept of a proposed Missouri Poison Control Network; and be it further

Resolved, that the MSMA Council drafts and submits or modifies a bill relating to the establishment of a Missouri Poison Control Network.

(Substitute Resolution #14 was adopted as amended.)

Resolution #15 — Child Auto Restraints

(Introduced by George Wise, M.D., Kansas City)

Resolved, that the MSMA endorses and supports the American Academy of Pediatrics National Program of "First Ride-Safe Ride" home from American Hospitals for infants by motivating educational programs in all Missouri hospitals to that end.

(Resolution #15 was adopted.)

For Step-1 diuretic therapy that

160
145
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130
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120
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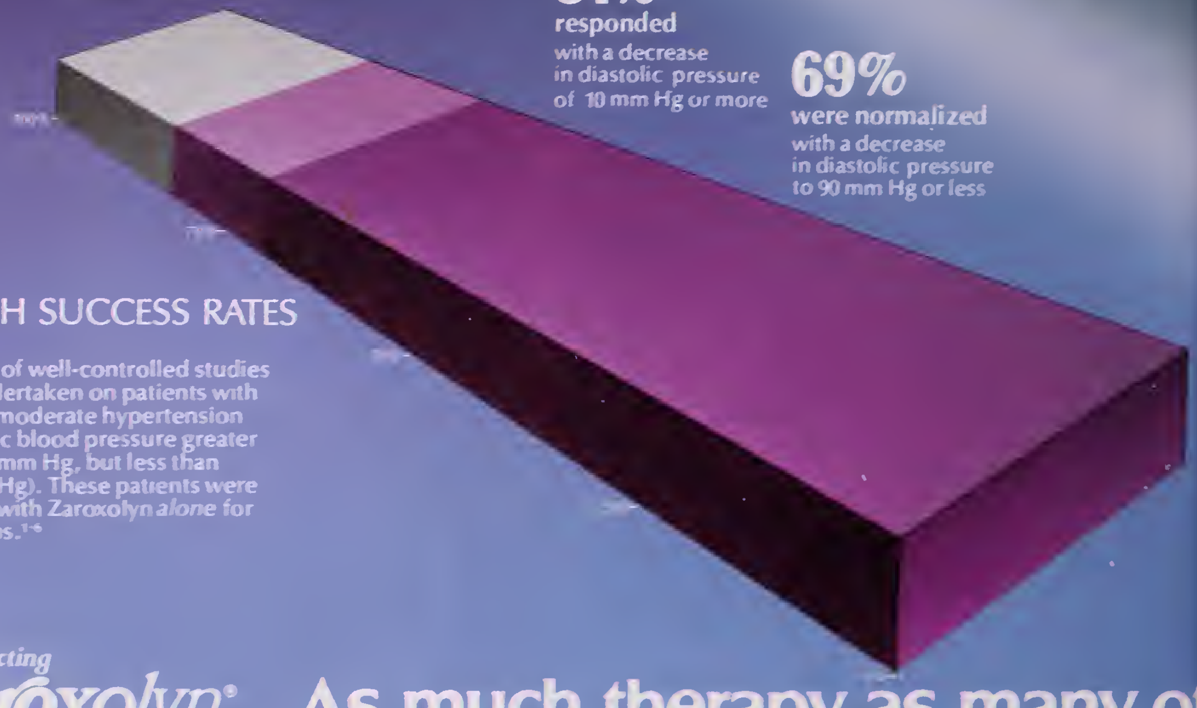
start with...



81%
responded
with a decrease
in diastolic pressure
of 10 mm Hg or more

69%
were normalized
with a decrease
in diastolic pressure
to 90 mm Hg or less

- HIGH SUCCESS RATES

A series of well-controlled studies was undertaken on patients with mild to moderate hypertension (diastolic blood pressure greater than 90 mm Hg, but less than 120 mm Hg). These patients were treated with Zaroxolyn *alone* for 6 months.[1-6]

Long-acting
Zaroxolyn®...As much therapy as many of
(metolazone) Pennwalt

mproves the bottom line…

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Long-acting

Zaroxolyn®

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2½ mg, 5 mg, 10 mg tablets

- NO TOLERANCE TO THE ANTIHYPERTENSIVE EFFECT NOTED IN LONG-TERM USE[1,4,5]
- WELL-TOLERATED ANTIHYPERTENSIVE THERAPY[1]… *ONCE DAILY* TO ENCOURAGE PATIENT COMPLIANCE

your hypertensive patients may ever need

Please see following page for prescribing information.

Long-acting
Zaroxolyn®
(metolazone) Pennwalt

Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease. Routine use in pregnancy is inappropriate. **Contraindications:** Anuria, hepatic coma or precoma, allergy or hypersensitivity to Zaroxolyn. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone. Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur Azotemia and hyperuricemia may be noted or precipitated Considerable potentiation may occur when given concurrently with furosemide. When used concurrently with other antihypertensives, the dosage of the other agents should be reduced Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia Administration to women of child-bearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk Not for pediatric use. **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered. Patients treated with diuretics or corticosteroids are susceptible to potassium depletion. Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur. Zaroxolyn 10 mg tablets contain FD&C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No. 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks. **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg; edema of renal disease—5 to 20 mg Dosage adjustment is usually necessary during the course of therapy **How Supplied:** Tablets, 2½, 5 and 10 mg

References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. **2.** Van Hoose MC, Cutler RE Antihypertensive efficacy of metolazone (Zaroxolyn®) alone and combined with reserpine in treatment of essential hypertension. *Curr Ther Res* 20:266-276, 1976. **3**. Cangiano JL, Campos JA, Trevino A IV, et al: The effects of metolazone in the long-term treatment of essential hypertension *Curr Ther Res* 16:778-785, 1974 **4.** Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Curr Ther Res* 20:745-750, 1976. **5.** Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Curr Ther Res* 18:527-533, 1975. **6.** Materson BJ, Oster JR, Perez-Stable EC Antihypertensive effects of metolazone (Zaroxolyn). *Curr Ther Res* 16:890-896, 1974

℞ DIVISION
PENNWALT
ROCHESTER, NEW YORK 14623

LETTER to MSMA Members

Thinking back upon their medical education, physicians will remember a time during their first year in medical school when they thought, "I want to have a good basic science background, but let me at least see some real live people!"

Since 1971, such an opportunity has existed for medical students in Missouri at the end of their first year. It is called MECO — Medical Education and Community Orientation.

MECO is a nationwide program sponsored by the American Medical Student Association in which local community hospitals or private physicians have preclinical students spend eight to ten weeks with them during the summer after the student's first year. The hospital provides the student with room and board plus a stipend of at least $100 per week and assigns a physician as a project coordinator to organize and supervise the student's experience.

For the student, MECO is an introduction to the community practice of medicine. In many cases, it is the first exposure to a more rural setting. A MECO project provides an opportunity for students to see the clinical aspects of medicine earlier, thus helping to make their basic science curriculum more meaningful. It also gives the student a unique chance to see the overall picture of health care delivery in a community.

For the hospital, MECO is an excellent way to recruit future physicians. A long range goal of MECO is to increase distribution of primary care health manpower to rural areas by exposing medical students to a primary care, community-oriented practice early in their medical education. More than 75% of students who have participated in a MECO project in a rural community want to return after they are practicing physicians. MECO also provides an opportunity for a physician to become involved in medical education and to help a future doctor. In support of this, the AAFP will grant up to 30 hours of continuing medical education credit to participating physicians.

In short, MECO can be a rewarding experience for both students and physicians.

If you are interested in sponsoring a student, or if you would like more information, please contact me at the following address:

Mary Kendall, Director
Missouri MECO Project
Box 172, UMMC School of Medicine
Columbia, MO 65212

If Little Jack Horner sat in a corner
This seems rather backward to me.
I suspect he would savor
Such peculiar behavior
And a corner's where Horner should be.

Wilfred E. Wooldridge
From: "Mother Goose Brought Up to Date"

works well in your office...

NEOSPORIN® Ointment

(polymyxin B-bacitracin-neomycin)

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

works just as well in their homes.

- It's effective therapy for abrasions, lacerations, open wounds, primary pyodermas, secondarily infected dermatoses.
- It provides broad-spectrum overlapping antibacterial effectiveness against common susceptible pathogens, including staph and strep.

- It helps prevent topical infections, and treats those that have already started.
- It contains three antibiotics that are rarely used systemically.
- It is convenient to recommend without a prescription.

NEOSPORIN® Ointment—for the office, for the home.
(polymyxin B-bacitracin-neomycin)

Effective • Economical • Convenient • Recommendable

Each gram contains: Aerosporin® (Polymyxin B Sulfate) 5,000 units, bacitracin zinc 400 units, neomycin sulfate 5 mg (equivalent to 3.5 mg neomycin base); special white petrolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz (approx.) foil packets.

WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended. When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome

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Research Triangle Park
North Carolina 27709

AN EXCEPTIONALLY FAVORABLE

You can expect rapid relief of a broad range of symptoms

With Limbitrol, patients often improve within a week. Not only is insomnia relieved, but you will often see early relief of agitation, psychic and somatic anxiety, anorexia and feelings of guilt or worthlessness. This early response encourages patients to stay in therapy.

You can minimize phenothiazine drawbacks

When you choose Limbitrol over a phenothiazine-containing product, you minimize the risk of tardive dyskinesia — now associated even with low dose, short-term phenothiazine therapy.[1,2] You also reduce the possibility of other extrapyramidal side effects, which occur in approximately 30% of patients receiving phenothiazines.[3-5] In contrast, the reported incidence of these disturbing reactions with Limbitrol or either of its components alone is rare. (For a complete list of side effects reported with Limbitrol, please consult full disclosure.)

References: 1. Paulson GW *NY State J Med 79*: 193-195, Feb 1979 **2.** Hollister LE Antipsychotic medications and the treatment of schizophrenia, chap. 9, in *Psychopharmacology from Theory to Practice*, edited by Barchas JD, *et al* New York, Oxford University Press, 1977 pp 134, 145. **3.** Domino EF Antipsychotics phenothiazines, thioxanthenes, butyrophenones, and rauwolfia alkaloids, chap 25, in *Drill's Pharmacology in Medicine*, ed 4, edited by DiPalma JR New York, McGraw-Hill Book Company, 1971, p.476 **4.** Savner R, DiMascio A Extrapyramidal syndromes and other neurologic side effects of psychotropic drugs, in *Psychopharmacology: A Generation of Progress*, edited b Lipton MA, DiMascio A Killom KF New York, Raven Press, 1978, p.1021 **5.** Donlon PT, Stenson RL *Dis Nerv Syst 37* 629-635 Nov 1976

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SAFETY/BENEFIT RATIO

What better reason to choose Limbitrol for your patients with moderate depression and anxiety?

Limbitrol® CIV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Efficacy without a phenothiazine

Please see summary of product information on following page.

Your guide to patient management... when you decide medication is needed

LIMBITROL® TABLETS Tranquilizer—Antidepressant

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g , operating machinery driving)

> *Usage in Pregnancy:* **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy

Limbitrol should not be taken during the nursing period Not recommended in children under 12 In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs

Cardiovascular. Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal Nausea, epigastric distress, vomiting anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other: Headache, weight gain or loss, increased perspiration, urinary frequency mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single h s dose may suffice for some patients Lower dosages are recommended for the elderly

Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased up to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt) – bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

How to initiate and maintain therapy

Select dosage strength appropriate for each patient

☐ Limbitrol 5-12 5 is recommended to minimize drowsiness and for elderly patients

☐ Limbitrol 10-25 may be indicated for patients who tolerate medication without undue side effects

Specify daily dosage based on symptom severity

☐ An initial dosage of three tablets is recommended

☐ Dosage may be increased to six tablets or decreased to two tablets daily as necessary

☐ Once a satisfactory response is obtained, patients should be continued on the smallest dose required to maintain the desired effect

Utilize dosage options to best accommodate individual patient needs

☐ T.I.D. or Q.I.D., familiar regimens most suited for patients who tolerate medication without undue drowsiness

☐ Two tablets one hour before bedtime and one tablet midday may minimize daytime drowsiness and help relieve a common target symptom – insomnia

☐ Entire dosage h.s to take maximum advantage of the sedative effect

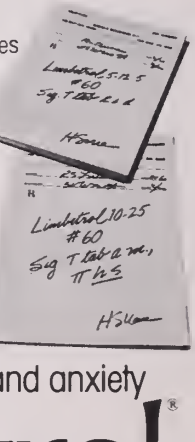
How to make each patient an informed patient

1. Discuss with patients the probability that they will experience drowsiness, especially during the first week.
2. Reassure your patients that drowsiness is one indication that the medication is working and that it may help alleviate their insomnia.
3. Encourage patients to report if drowsiness becomes troublesome so that, if necessary, dosage schedule can be adjusted.
4. Caution patients about the combined effects with alcohol or other CNS depressants. Let them know that the additive effects may produce a harmful level of sedation and CNS depression.
5. Caution patients about activities requiring complete mental alertness, such as operating machinery or driving a car.
6. Warn pregnant patients and patients of childbearing age that the safety of Limbitrol in pregnancy has not yet been established.

Please see complete product disclosure for other pertinent information.

Limbitrol should not be used under the following circumstances:

1. Hypersensitivity to benzodiazepines or tricyclic antidepressants.
2. Concomitantly with an MAO inhibitor. To replace an MAO inhibitor with Limbitrol, discontinue MAO inhibitor for a minimum of 14 days before cautiously initiating Limbitrol therapy.
3. During the acute recovery phase following myocardial infarction.



ROCHE
ROCHE PRODUCTS INC
Manati, Puerto Rico 00701

In moderate depression and anxiety

Limbitrol® Ⓘⓥ

Relief without a phenothiazine

MSMA Members Receive Physician's Recognition Award

Fifty-seven MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of December, 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category 1 programs.

Names of additional PRA recipients will be published in Missouri Medicine as they are received from the AMA.

James E. Allan, Jefferson City
Carol R. Archer, Clayton
Thomas J. Banton, Bridgeton
Hector D. Barragan, Kirkwood
John L. Barton, Cape Girardeau
Herbert C. Bastow, Columbia
Edward F. Berg, St. Louis
Richard D. Blim, Kansas City
Harold A. Budke, Kansas City
John G. Campbell, Kansas City
Robert M. Crawford, Sullivan
Carey M. Delcau, St. Louis
Gerald J. Duling, St. Charles
Donald J. Easton, Columbia
David Feldman, St. Louis
Raymond B. Finch, Bolivar
Lees C. Forsythe, Kansas City
Donald E. Frein, Harrisonville
Richard W. Gunn, Kansas City
Harry D. Haas, Kansas City
Michael D. Hagen, Aurora
Kent A. Huston, Kansas City
James H. Jones, St. Louis
Donald L. Kaminski, St. Louis
Francis C. King, St. Louis
William M. Kitchen, Kansas City
Harold C. Lentz, Neosho
Kun T. Liao, St. Louis
Jose A. Lima, St. Louis
David S. Martin, Creve Coeur
William B. Mill, Jr., St. Louis
Richard L. Muchnick, Kirkwood
James S. Nelson, St. Louis
Jere O. Osborne, Kansas City
William D. Owens, St. Louis
Rita D. Perll, Kansas City
Guido I. Podrecca, Springfield
Kenneth L. Rall, Columbia
Carl M. Regier, Branson
Beverly J. Ringenberg, Chesterfield
Arthur W. Robinson, Kansas City
James T. Robison, Kansas City
Manuel W. Runez, Houston
Mickey L. Salmon, St. Louis
Theodore L. Sandow, Kansas City
Gerhard W. Schottman, Kansas City
Thomas L. Stern, Kansas City
Robert H. Sueper, Creve Coeur
Robert W. Tatkow, St. Louis
Dick H. Underwood, Kansas City
Charles M. Waggoner, Columbia
Robert P. Wankum, Jefferson City
Clark C. Watts, Columbia
James W. Willoughby, Kansas City
Robert L. Winders, Warrensburg
Thomas O. Wood, Poplar Bluff
Robert A. Zink, St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

Feb. 22- Mar. 1	Traveling Medical Education Course — K.C. Southwest Clinical Society (Nassau, The Bahamas)
Feb. 26	Neurological Problems in Pediatrics Demonstrated by CT (Truman Medical Center)
Mar. 26	Infratentorial Lesions — CT of the Post Fossa Masses (Truman Medical Center)
Mar. 26-28	Perspectives in Medicine — 1981 (Hyatt Regency Hotel)
April 24-25	The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
April 30	C.V.A. — Anatomical Correlation by CAT (Truman Medical Center)
May 8-9	Geriatrics Seminar (Alameda Plaza Hotel)
May 14-15	Surgical Problems: The Old and the New (Hyatt Regency Hotel)
May 28	CT Evaluation of Supratentorial Lesion (Truman Medical Center)
June 5-6	Symposium on Physical Fitness (Crown Center Hotel)
June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)

DePaul Community Health Center
12303 DePaul Drive, Bridgeton 63044
(314) 344-6262
***Contact:* Medical Director's Office**

Mar. 4	Neuropharmacology Program (DePaul Division Auditorium)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

April 1	CT Scanning
June 3	Lung Disease
Aug. 5	Multisystem Trauma

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Office of CME**

Mar 2- May 18	Internal Medicine Review (Monday Evenings — Jewish Hospital)
Mar. 12-13	Gland Rounds (What's New in Endocrinology)
Mar. 16-17	Eighth Annual Symposium on Obstetrics & Gynecology
Mar. 19-20	Rheumatology for the Practicing Physician
April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Caribbean Cruise)
May 8-9	Alumni Reunion
May 13	Burns: The Early Days
May 21-22	Postgraduate Course in Otolaryngology

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Mar. 9	City-Wide Radiology Conference — Interventional Radiology
April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
May 11	City-Wide Radiology Conference — Digital Imaging and Computers Radiology
June 13	Leroy Sante Lecture

University of Missouri School of Medicine Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Mar. 3	Preceptors Day
Mar. 4-5	4th Annual Family Practice Update Session
Mar. 19-20	Spring Surgery Conference
Mar. 30-31	27th Annual Urology Seminar (Crown Center Hotel, Kansas City)

(Continued on next page)

Apr. 8-9	Primary Pediatrics for the Primary Physician
May 8-10	4th Annual Missouri Cardiovascular Conference (Tan-Tar-A, Osage Beach)

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
Contact: **Norman L. Martin, M.D., President**

Mar. 11	Nuclear Medicine (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (St. Luke's Hospital)
April 8	Bone and Joint (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (Kansas University Medical Center)
May 20	Pediatric Urology (With Greater K.C. Urological Society, Granada Royale Hotel)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
Contact: **Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)

3:00 PM — Surgical Rounds
(Every Wednesday and Friday)

4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)

4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)

8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)

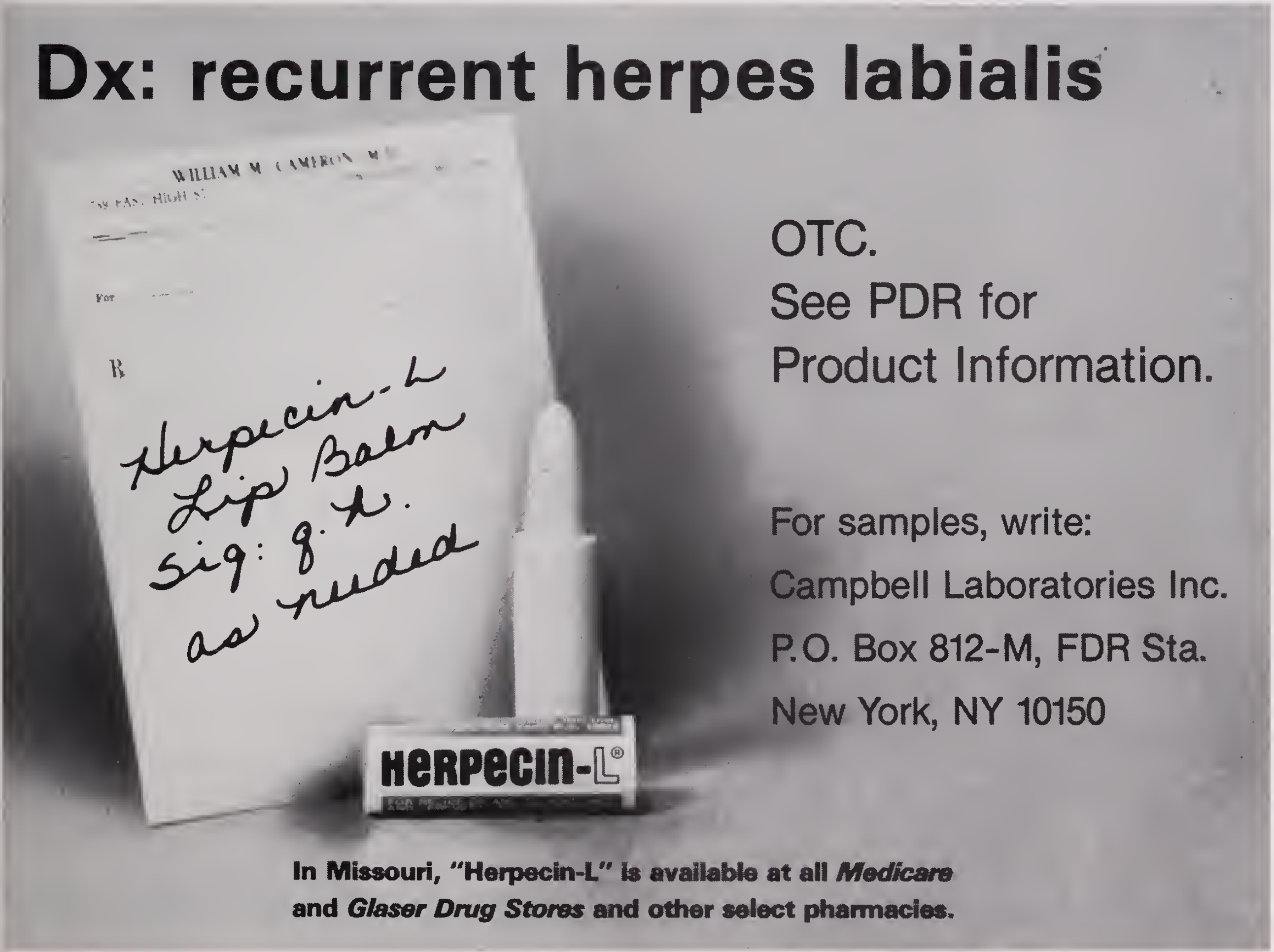
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

Contact: **David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

Missouri-Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141
Contact: **Richard B. Oglesby, M.D.**

May 17	Twelfth Eye Seminar — Refractive Surgery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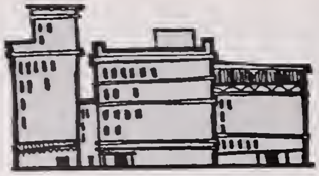

NEWS
From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA

Hugh E. Stephenson, M.D., professor of surgery, served on the Reference Committee for Medical Education at the 1980 Interim Meeting of the American Medical Association in San Francisco in December. Dr. Stephenson is one of five Missourians in the AMA House of Delegates.

Dr. Burton

Dr. Thomas Burton, professor of ophthalmology at the University of Iowa, has accepted a similar appointment at the School of Medicine.

A 1964 graduate of Northwestern University School of Medicine, Dr. Burton was an intern at Cook County Hospital. He completed his residency in ophthalmology in 1968 at the University of Illinois Eye and Ear Infirmary in Chicago. After a one-year fellowship in retinal surgery at the University of Iowa, he joined the faculty there.

Dr. Joseph T. Walls has been named assistant professor of cardiothoracic surgery at the School of Medicine.

A 1962 graduate of the University of Arkansas School of Medicine, Dr. Walls completed a general surgery residency at the Mayo Clinic in 1967. Following military service with the U.S. Army, he was in private practice for five years. For the past four years, he was at the Mayo Graduate School of Medicine where he completed a residency in thoracic and cardiovascular surgery and a National Research Service Award Fellowship.

In addition to his thoracic and cardiovascular surgery practice, Dr. Walls will continue researching myocardial preservation techniques.

Mark McIntosh, a postdoctoral research fellow in biochemistry at the University of California at Berkeley, has been named assistant professor of microbiology.

Dr. McIntosh received his Ph.D. degree in microbiology in 1978 from the University of Texas at Austin.

Dr. Howard Hopps, Curators' Professor of Pathology at the School of Medicine was invited to attend a three-day workshop in Washington, D.C. concerning future research directions in environmental cancer, heart and lung disease. The workshop covered exposure, metabolism and mechanisms of toxicity.

The workshop concluded on January 30 with an informational report submitted to the U.S. Congress of the Interagency Task Force on Environmental Cancer and Heart and Lung Disease for its annual report.

Dr. Hopps was asked to discuss his views on research which should be implemented with respect to environmental factors and disease, emphasizing the role played by the geochemical environment.

Dr. Hopps is a consultant to the U.S. Geological Survey's Water Resources Division where he advises and assists with research on the effects on human health related chemical characteristics of drinking water.

Presently, Dr. Hopps is chairman of a National Academy of Sciences panel which is studying the effects of the geochemical environment on human aging. Twelve years ago Dr. Hopps was instrumental in establishing the National Academy of Sciences' subcommittee on geochemical environment related to health and disease. He is also past president and one of the founders of the Society for Environmental Geochemistry and Health.

UNIVERSITY OF MISSOURI-KANSAS CITY

The School of Medicine will sponsor "Symposium: Issues and Challenges" on April 3-4. Participants in the symposium include *Nathan Stark*, former undersecretary of the Department of Health and Human Services, and *Homer C. Wadsworth*, director of the Cleveland Foundation, Cleveland, Ohio.

Harry S. Jonas, M.D., dean of the School of Medicine and professor of obstetrics and gynecology, recently participated in a panel discussion at the annual meeting of the Central Association of Obstetricians and Gynecologists in Minneapolis.

The schools of Medicine and Dentistry, in association with the Academy of Health Professions, recently completed production of a videotape and study guide for the American Medical Association's *Video Clinics* series for continuing medical education.

The book, "Neonatal Pulmonary Care," which was edited by *Donald W. Thibeault*, M.D., professor of pediatrics, and *George Gregory*, M.D., has won the American Medical Writers Association annual book award. It is published by Addison-Wesley Publishing Co.

WASHINGTON UNIVERSITY

Virginia Weldon, M.D., professor of pediatrics and assistant to the vice-chancellor for medical affairs, has accepted the invitation of *Patricia Roberts Harris*, secretary of Health and Human Services, to serve a term on the National Advisory Research Resources Council of the National Institutes of Health. Her appointment is effective immediately and will terminate on Oct. 31, 1984.

The Council advises the director of the NIH about pertinent research programs. One major responsibility of the Council is to review and make recommendations about grant applications. Another major responsibility is to survey the total research effort in a particular subject field and, then, recommend the appropriate action to stimulate additional work.

Dr. Weldon was graduated from the University of Buffalo School of Medicine in 1962. She interned and served her residency in pediatrics at The Johns Hopkins Hospital. She was a Fellow in Pediatric Endocrinology and, later, an instructor in pediatrics in the Division of Pediatric Endocrinology at The Johns Hopkins University School of Medicine. In 1969, Weldon came to Washington University School of Medicine as an Instructor in Pediatrics.

In addition to her duties at the Medical School and the Medical Center, Dr. Weldon is a member of the staffs of Barnes Hospital and St. Louis Children's Hospital.

ST. LOUIS UNIVERSITY

Stuart Forman, M.D., a resident in psychiatry at St. Louis University Medical Center, is one of 15 residents nationwide to be chosen as a Laughlin Fellow by the American College of Psychiatrists.

The most promising residents from medical institutions throughout the country were nominated for the honor which is named for the founder of the American College of Psychiatrists, Dr. H. P. Laughlin. As a Laughlin Fellow, Dr. Forman will attend the annual meeting of the College on February 15-19, which features many continuing education opportunities.

Harold Brody, Ph.D., M.D., chairman, Department of Anatomical Sciences, State University of New York at Buffalo, gave St. Louis University School of Medicine's first Florence Browning Memorial Lecture in Gerontology and Geriatrics.

Dr. Brody's topic was "The Aging Nervous System." The lecture was presented by the Department of Internal Medicine and the interdepartmental committee on gerontology and geriatrics. Dr. Brody, a past-president of the Gerontological Society of America, and is now editor-in-chief of the *Journal of Gerontology* as well as an advisor to the White House Conference on Aging.

The most recent annual report from the University Hospitals, for fiscal 1979-80, shows considerable increase in patient services compared with the previous year. One of the most dramatic increases was in open heart operations, which rose from 789 to 962.

Kidney dialysis treatments also increased, from 257,963 treatments last year to 289,569 treatments in 1979-1980.

Fernando deCastro, M.D., professor of pediatrics and associate professor of community medicine, St. Louis University School of Medicine, has been named to the 1981 National Advisory Committee of the White House Conference for Children and Youth.

The 35-member group is meant to inform the public and governmental and private agencies of the circumstances and prospects of the nation's children and youth.

Dr. deCastro is also director of ambulatory care services at Cardinal Glennon Memorial Hospital for Children.

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New Members

Bradley C. Black, M.D., Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Black is a native of Indianapolis, Ind., received his preliminary education at Purdue University and his M.D. degree at Indiana University in 1977. He specializes in ophthalmology.

Nelson S. Brewer, M.D., 14 Doctor's Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Brewer is a native of Cape Girardeau, received his preliminary education at Vanderbilt University and his M.D. degree at Tulane University in 1966. He specializes in internal medicine.

James R. Criscione, Jr., 3535 S. Jefferson, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Criscione is a native of St. Louis, received his preliminary education at Webster College and his M.D. degree at the University of Missouri-Columbia in 1980. He specializes in emergency medicine.

Carl S. Davis, M.D., 225 S. Douglas, Lee's Summit 64063, has become a member of Jackson County Medical Society. Dr. Davis is a native of Lamar, received his preliminary education at Southwest Missouri State University and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

Abulbasher M. Faizullah, M.D., Mansfield Hospital Annex, Mansfield 65704, has become a member of South Central Counties Medical Society. Dr. Faizullah is a native of Bangladesh, received his preliminary education at Chittagong College and his M.D. degree at Chittagong Medical College in 1973. He specializes in internal medicine and pediatrics.

James T. Farrell, D.O., 500 Jungermann Rd., St. Peters, 63376, has become a member of St. Charles-Lincoln County Medical Society. Dr. Farrell is a native of Pittsfield, Ill., received his preliminary education at Northeast Missouri State University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1975. He specializes in family practice.

Richard W. Gengelbach, M.D., Fayette Medical Clinic, Elm and Church St., Fayette 65248, has become a member of Howard County Medical Society. Dr. Gengelbach is a native of St. Joseph, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

Mark G. Grand, M.D., Suite 5103, Queeny Tower, Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Grand is a native of Brooklyn, N.Y., received his preliminary education at Tufts University and his M.D. degree at Yale University in 1968. He specializes in ophthalmology.

James J. Hamilton, M.D., 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Hamilton is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at the Medical College of Wisconsin in 1971. He specializes in orthopedic surgery.

Jimmy D. Heath, M.D., 320 N. Lincoln, East Prairie 63845, has become a member of SEMO County Medical Society. Dr. Heath is a native of Colorado Springs, Colo., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1979. He specializes in general practice.

Robert W. Hevel, D.O., Main St., Frankford 63441, has become a member of Marion-Ralls-Shelby County Medical Society. Dr. Hevel is a native of Warrenton, received his preliminary education at Northeast Missouri State University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1979. He specializes in family medicine.

Mark S. Hoerl, M.D., Fayette Medical Clinic, Fayette 65248, has become a member of Howard County Medical Society. Dr. Hoerl is a native of Boonville, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in family practice.

Kenneth R. Kopp, M.D., 373 W. 101st Terr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Kopp is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at St. Louis University in 1975. He specializes in internal medicine.

Nancy M. McBride, M.D., Suite 302, 4400 Broadway, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. McBride is a native of Kansas City, received her preliminary education at the University of Kansas and her M.D. degree at the University of Kansas in 1976. She specializes in obstetrics and gynecology.

Michael R. Moore, M.D., 805 Kentucky, West Plains 65775, has become a member of South Central Counties Medical Society. Dr. Moore is a native of West Plains, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at Tulane University in 1971. He specializes in general practice.

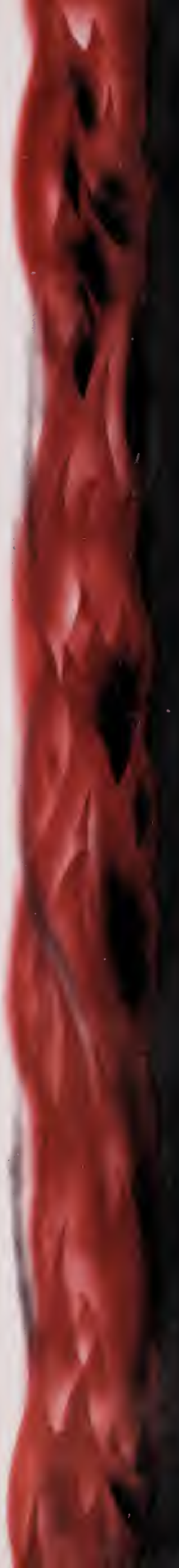
John J. O'Keefe, M.D., 9869 D Paul Revere Dr., St. Louis 63123, has become a member of St. Louis Metropolitan Medical Society. Dr. O'Keefe is a native of Troy, N.Y., received his preliminary education at Canisius College and his M.D. degree at State University of New York Upstate in 1975. He specializes in internal medicine.

Neftali Olmo-Terron, M.D., 601 E. 63rd, Suite 403, Kansas City 64110, has become a member of Jackson County Medical Society. Dr. Olmo-Terron is a native of Barceloneta, Puerto Rico, received his preliminary education at Santiago University and his M.D. degree at Santiago University in 1965. He specializes in psychiatry.

Olusola A. Orebiyi, M.D., 10246 Meadwood Dr., St. Louis 63114, has become a member of St. Louis Metropolitan Medical Society. Dr. Orebiyi is a native of Nigeria, received his preliminary education at the University of Lagos and his M.D. degree at the University of Lagos in 1972. He specializes in general surgery.

Jon Rudnick, M.D., Research Medical Center, 2316 E. Meyer Blvd., Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Rudnick is a native of Princeton, N.J., received his preliminary education at Columbia University and his M.D. degree at the University of New Mexico in 1975. He specializes in occupational medicine.

(Continued on page 102)



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Douglas N. Smith, D.O., P.O. Box 28, Naylor 63953, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Smith is a native of Kirksville, received his preliminary education at the University of Missouri-Columbia and his D.O. degree at Kirksville College of Osteopathic Medicine in 1978. He is in general practice.

Allen L. Spitler, M.D., 25 Doctor's Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Spitler is a native of Cape Girardeau, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1966. He specializes in cardiology.

James M. Stoddard, D.O., Consortium for Health Education, 2920 McGee, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Stoddard is a native of Mason City, Iowa, received his preliminary education at the University of Iowa and his D.O. degree at Kansas City College of Osteopathic Medicine in 1977. He specializes in internal medicine.

Suzanne S. Toce, M.D., Cardinal Glennon Hospital, 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Toce is a native of New Haven, Conn., received her preliminary education at Wellesley College and her M.D. degree at the University of Wisconsin in 1976. She specializes in pediatrics.

New Student Members

St. Louis University

James M. Brennan
Daniel L. Bruning
James S. Compton
Charles M. Currie
Jeffrey L. Draves
Marianne R. Dunstan
James E. Ebel
Mark A. Faron
Thomas J. Federico
James J. Gibbons
Linda L. McElheny
John S. Mitchell
Kerry G. Perloff
Douglas A. Pohl

Marc J. Pomerantz
Gary M. Reagan
Brent E. Ruoff
Kathleen S. Sallwasser
Carl J. Sippel
Barry R. Sundland
Nancy A. Wilcox

University of Missouri-Columbia

Guilio La Cross, Jr.

University of Missouri-Kansas City

Jamie S. Koehler
C. Alan Scott

In Memoriam

Henry P. Thym, M.D., 436 Coronado Dr., Ballwin 63011; a graduate of Washington University, 1926; member of St. Louis Metropolitan Medical Society; aged 79; died Oct. 28, 1980.

Eric Handler, M.D., 1301 N. 43rd, St. Joseph 64501; a graduate of Schlesische-Friedrich-Wilhelms University, 1925; member of Buchanan County Medical Society; aged 79; died Nov. 16, 1980.

Edgar W. Spinzig, M.D., #5 Hawbrook Lane, Kirkwood 63122; a graduate of Washington University, 1921; member of St. Louis Metropolitan Medical Society; aged 83; died Nov. 17, 1980.

Robert H. Stewart, M.D., 201 Driftwood Dr., Sedalia 65301; a graduate of University of Iowa, 1951; member of Pettis County Medical Society; aged 58; died Nov. 29, 1980.

Hugh L. Dwyer, M.D., 10016 Mastin Dr., Shawnee Mission, Kans. 66212; a graduate of Tulane University, 1918; member of Jackson County Medical Society; aged 90; died Dec. 5, 1980.

Abraham Aronson, M.D., 11 Conway Lane, St. Louis 63124; a graduate of University of Illinois, 1935; member of St. Louis Metropolitan Medical Society; aged 69; died Dec. 17, 1980.

Norman C. Miller, M.D., 5006 Tholozan, St. Louis 63109; a graduate of Washington University, 1924; member of St. Louis Metropolitan Medical Society; aged 84; died Dec. 22, 1980.

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in Brief

A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

AMA OFFICIALS MET WITH President-Elect Reagan and members of his staff on December 10 in Washington, D.C. The discussion included a general review of AMA policy positions and was described as cordial. Representing the AMA at the meeting were President Robert B. Hunter, M.D.; Board of Trustees Chairman Lowell H. Steen, M.D.; Executive Vice-President James H. Sammons, M.D.; and Deputy EVP Joe D. Miller.

"CONGRESS DID NOT ENVISION and would not have approved this kind of generic rulemaking," the AMA said in comments submitted to the FDA on proposed expansion of the restricted device provisions of the Medical Device Amendments of 1976. The proposal would designate broad categories of devices as restricted and would establish labeling requirements for all such devices. The AMA pointed out that a significant burden would be shifted from the agency to industry and users because most devices would fall under the proposed categories and it would be up to the manufacturer to establish that its device does not require controls. The proposal "would expand to unforeseen dimensions FDA's potential control of medical practice," the AMA stated. Withdrawal of the rule and establishment of appropriate criteria were urged.

ALL STATE AND COUNTY medical societies were urged by the House at the Interim Meeting to embark on programs similar to the AMA's Corporate Visitation Program, as a means of assisting the business and industrial community during a period of rising health care costs. The delegates encouraged the societies to seek AMA support in implementing their programs and suggested that the medical officer or consultant of each firm be involved.

IN HIS PRESIDENTIAL ADDRESS at the Interim Meeting, Robert B. Hunter, M.D., urged the delegates to carry to every physician the word that the AMA Federation, "in membership and in resources, financial and otherwise, must be as large as the problems ahead, and equal to the imposing responsibilities ahead." Noting that each level of the Federation is vital to the whole in providing different membership benefits, Dr. Hunter said: "But the total of all these constitutes that very continuum of concerned thought and concerted action that gives us an effective voice at the local, state and national levels. . . . We must dissuade prospective members from choosing between us and persuade them to choose all of us."

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

Dr. E. A. Doisy, St. Louis, director of the Biochemistry Department of St. Louis University School of Medicine, has been named a member of the National Advisory Cancer Council.

Parke, Davis & Co., Detroit, Mich., is celebrating its diamond anniversary in 1941. The company began as a small drug store in Detroit in 1866. The offices and research and manufacturing laboratories now occupy six blocks and a 700-acre farm at Rochester, Mich.

The greatest catastrophe in number of lives lost during 1940 was the dance hall fire in Mississippi in which 210 lives were lost.

The Grundy-Daviess County Medical Society met in Trenton on January 9. The following officers were elected: E. J. Mairs, M.D., president; O. R. Rooks, M.D., vice-president; and E. A. Duffy, M.D., secretary-treasurer. All are physicians in Trenton.

The Mercer County Medical Society met in the office of Dr. C. J. Laws in Princeton on January 6. Officers reelected were Dr. G. M. Bristow, Princeton, president and Dr. J. M. Perry, Princeton, secretary-treasurer. Members present were Drs. T. S. Duff and Harvey Nally, Cainesville; C. J. Laws, J. M. Perry, A. S. Bristow and E. W. Stacy, Princeton.

TWENTY-FIVE YEARS AGO

The hospital medical staff in Chillicothe elected John N. Martin, M.D. as its new president.

Eugene H. Hamilton, M.D. was elected president by the staff of St. John's Hospital in Joplin.

C. Edgar Virden, M.D., Kansas City, was chosen as president-elect of the Radiological Society of North America at a recent meeting in Chicago.

The following staff officers were elected at the annual meeting of St. Mary's Hospital in Jefferson City on December 14: president, Everett D. Sugarbaker, M.D.; vice-president, August P. Stephan, M.D.; secretary-treasurer, B. E. Watts, M.D. The executive committee members are Drs. J. A. Ossman, Henry V. Guhleman, Jr. and Earl L. Loyd.

The medical staff of the Louise G. Wallace Memorial Hospital in Lebanon elected Dr. George E. Fisher as chief-of-staff and George R. Weeks as secretary at its annual meeting on December 16.

Fifty-five physicians met on December 8 in Kansas City and formed the Greater Kansas City Society of Internists. Hubert Parker, M.D. was named president; James Jarvis, M.D., president-elect; and William Mundy, M.D., treasurer.

The Kansas City College of Pharmacy honored Dr. R. E. Castelaw of Kansas City and Dr. D. S. Long of Harrisonville at a dinner on November 10. Both were graduates of the college before they studied medicine.

TEN YEARS AGO

A review of nearly 500 patients coming to autopsy at the University of Missouri-Columbia Medical Center indicates that 12% of the patients might have been organ donors for a renal transplant program. It is now possible for the patient-care physicians in community hospitals to be part of the transplant team by helping to provide donor tissue. This is reported by James O. Reynolds, Jr., James S. Roloff, J. P. Marshall, II and William V. Miller, M.D. of Columbia. The first three were second-year medical students at the time the study was made.

The 23rd Annual Midwest Cancer Conference will be held at the Broadview Hotel in Wichita, Kan. on March 26-27, 1971. John S. Spratt, Jr., M.D., director and administrator of Ellis Fischel State Cancer Hospital in Columbia is one of the eight speakers.

The Missouri State Medical Association, in cooperation with the AMA, is cosponsoring a number of seminars in the medical sciences at six universities in Missouri during the 1970-1971 academic year. Dr. Robert E. Shank, Danforth Professor of Preventive Medicine at Washington University School of Medicine, and Dr. Calvin Woodruff of the Department of Pediatrics at the University of Missouri-Columbia School of Medicine will be visiting lecturers.

Missouri Medicine

Vol. 78, No. 3 (ISSN 0026-6620) March, 1981

123rd
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Delegates
and
Exhibitors

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Fluid and Electrolyte Therapy in Diabetic Ketoacidosis

MISSOURI STATE MEDICAL ASSOCIATION

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After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies. Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized.

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

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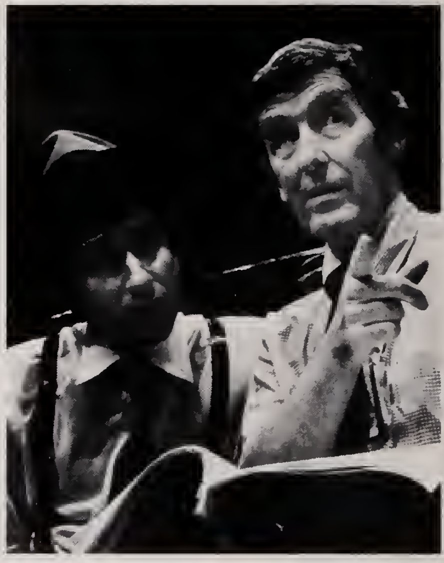

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Missouri Medicine

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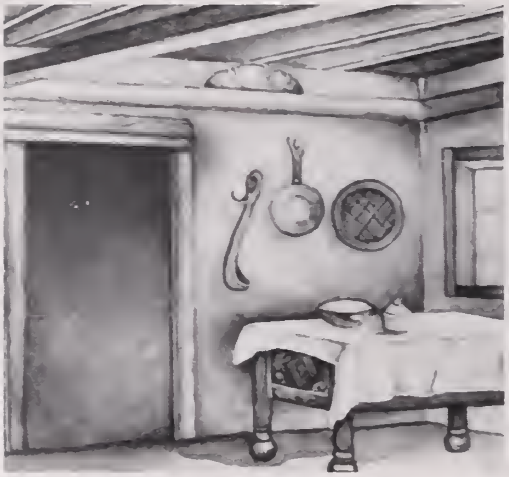
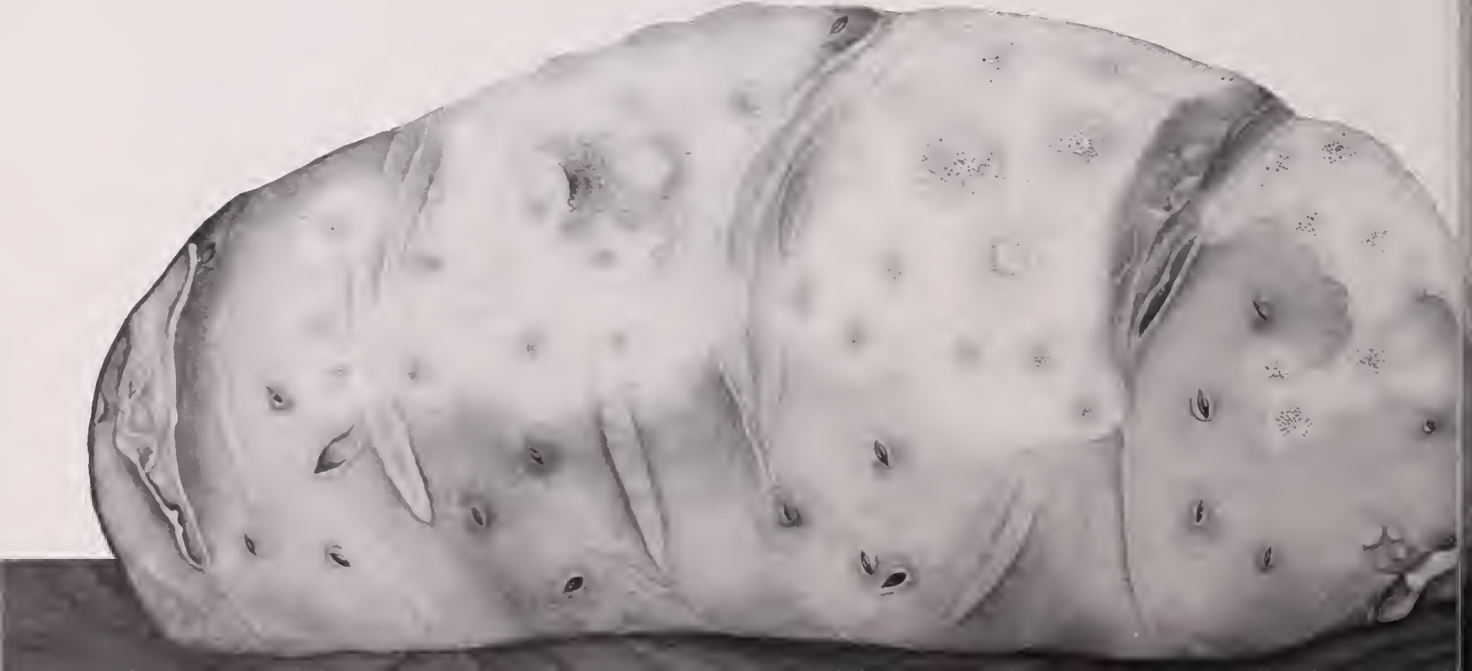
Yesterday's Folk Remedy:

A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]



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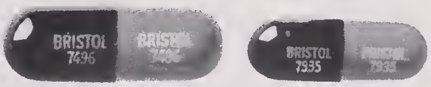

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1 Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.

2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.

3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

See brief summary of prescribing information on an adjoining page.

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

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IMPORTANT NOTE

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Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing approximating the high percentage of resistant staphylococcal isolates found in the hospital For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality Because of this there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently) Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus

CONTRAINDICATIONS

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens It an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e g pressor amines antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics If superinfection occurs during therapy, appropriate measures should be taken

As with any potent drug, periodic assessment of organ system function, including renal hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS.

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made Skin rashes and allergic symptoms including wheezing and sneezing, have occasionally been encountered Eosinophilia, with or without overt allergic manifestations has been noted in some patients during therapy

USUAL DOSAGE:

Adults 250 mg q 6h

Children 50 mg /Kg /day in equally divided doses q.6h Children weighing more than 20 Kg should be given the adult dose Administer on empty stomach for maximum absorption

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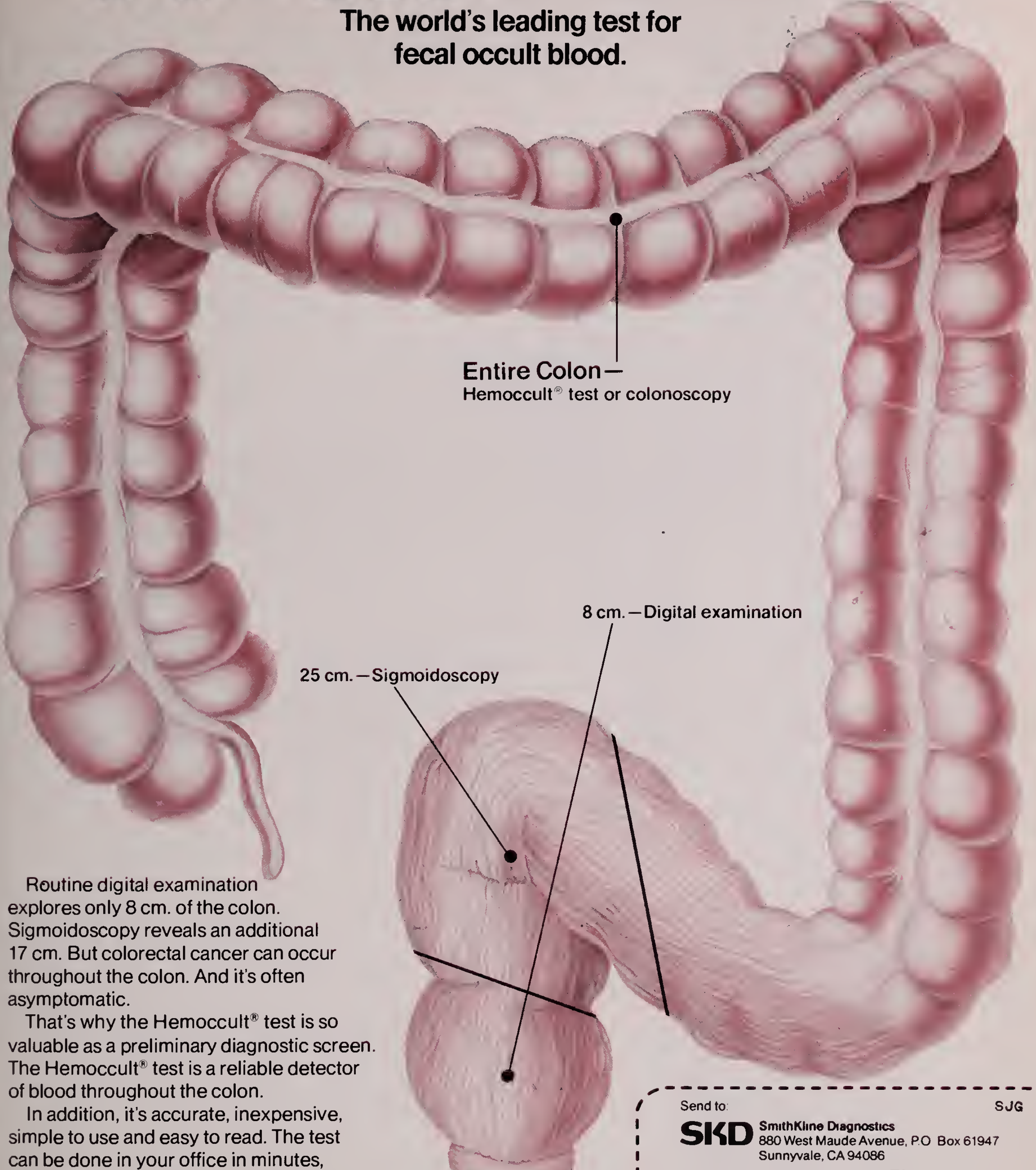

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Acute pain is no laughing matter.

The first prescription for the first days of acute pain

Empirin® c̄ Codeine #3

Each tablet contains: aspirin, 325 mg; plus codeine phosphate, 30 mg, (Warning — may be habit-forming). CIII

For the millions of patients who need the potency of aspirin and codeine for their acute pain.

The pain of fractures, strains, sprains, burns and wounds is at its peak during the first three to four days following trauma. The potent action of Empirin c̄ Codeine begins to work within 15 minutes of oral administration, an important advantage during this acute pain period. Empirin c̄ Codeine has unique bi-level action to attack pain at two critical points: peripherally at the site of injury and centrally at the site of pain awareness.

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EMPIRIN® with Codeine

DESCRIPTION: Each tablet contains aspinn (acetylsalicylic acid) 325 mg plus codeine phosphate in one of the following strengths: No. 2 — 15 mg, No. 3 — 30 mg, and No. 4 — 60 mg. (Warning — may be habit-forming.) CIII

CONTRAINDICATIONS: Hypersensitivity to aspirin or codeine.

WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies: patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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MSMA

NEWS ROUND-UP

March, 1981

Schedule set for 123rd Annual Session

Physicians from all over Missouri will gather in St. Louis, April 9-12 for the 123rd Annual Session of the Missouri State Medical Association. The 1981 Session, at the Chase Park-Plaza Hotel, will feature an outstanding scientific program, in addition to discussion of many topics of importance to Missouri physicians.

Eli Ginzberg, Ph.D., a nationally known economist, will be the featured speaker at the Opening General Session on Friday, April 10. His topic will be "How Much Will Medical Practice Change in the 1980s."

Discussion on a variety of resolutions will begin at the opening session of the MSMA House of Delegates at 10:30 a.m., Thursday April 9. All resolutions, plus committee and commission reports and Council minutes, will be referred to open Reference Committee meetings for debate. All MSMA members are invited to attend these hearings and to express their opinions on the subjects at hand.

Continued on Next Page

Schedule of Events

Thursday, April 9

8:00 a.m.	Registration of Delegates, **Regency Room**
10:30 a.m.	House of Delegates, Opening Session, **Khorassan Room**
1:00 p.m.	Reference Committee Meetings
6:30 p.m.	MSMA Auxiliary Auction, **Chase Club**

Friday, April 10

8:00 a.m.	Registration, **Regency Room**
8:00 a.m.	Exhibits Open
9:00 a.m.	General Session, **Khorassan Room** Introductions: **Richard V. Bradley, M.D.,** St. Louis, MSMA President Greetings from the AMA: **Joseph F. Boyle, M.D.,** Los Angeles, California, Vice-Chairman, AMA Board of Trustees Speaker: *How Much Will Medical Practice Change in the 1980s?*— **Eli Ginzberg, Ph.D.,** New York, New York
11:00 a.m.	Scientific Sessions Begin
3:00 p.m.	Missouri State Medical Foundation Annual Meeting, **Khorassan Room**
3:00 p.m.	Discuss the Issues with Your AMA Delegates, **Swedish Room**
4:00 p.m.	House of Delegates, Second Session, **Khorassan Room**
6:00 p.m.	Reference Committee Meetings

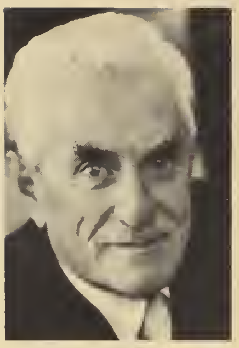
Saturday, April 11

7:30 a.m.	MSMA Auxiliary Public Affairs Breakfast, **Chase Club** Speaker: **The Honorable Wendell Bailey,** U.S. Congressman, Missouri's Eighth District.
8:00 a.m.	Registration, **Regency Room**
8:00 a.m.	Exhibits Open
8:30 a.m.	Scientific Sessions Begin
12:30 p.m.	50-Year Club Luncheon, **Palladian Room**
6:30 p.m.	MSMA Social Hour for those attending President's Banquet, **Chase Club**
7:15 p.m.	MSMA Annual President's Banquet, **Chase Club**

Sunday, April 12

7:30 a.m.	House of Delegates Breakfast and Final Session, **Khorassan Room**

123rd Annual Session


Dr. Eli Ginzberg

(Continued)

The Reference Committees will meet beginning at 1 p.m. on Thursday. Following testimony on the resolutions, the Committees will submit reports back to the House. The second meeting of the House will be at 4 p.m. Friday and the final session at 7:30 a.m. Sunday.

The excellent scientific program will feature 26 scientific sessions sponsored by 14 medical specialties and two voluntary health organizations. The sessions are approved for Category I CME credit and are also acceptable for prescribed and elective hours by the American Academy of Family Physicians.

There will also be 44 technical exhibits, providing physicians with an opportunity to view and discuss new equipment and drugs. MSMA members who register at the exhibit booths will be eligible for prizes to be awarded on Friday and Saturday, April 10-11.

The MSMA Auxiliary will host several activities during the 1981 Annual Session. The Honorable Wendell Bailey, U.S. Representative from Missouri's Eighth District, will be the featured speaker at the MSMA Auxiliary Public Affairs Breakfast, 7:30 a.m. Saturday.

In addition, the MSMA Auxiliary will sponsor the third annual benefit auction for MSMF/AMA-ERF. All MSMA members, MSMA Auxiliary members and guests are invited to attend the auction, which begins at 6:30 p.m. on Thursday, April 9.

The Annual MSMA President's Banquet will be held Saturday evening. Tickets for this banquet, the 50-year Club luncheon and the breakfast meeting of the House of Delegates will be available at the MSMA Registration Desk.

A Preliminary Program and a hotel reservation card have been mailed to each MSMA member. The program contains a schedule of the scientific programs to be held all day Friday and Saturday.

New breast cancer education program

Employee education through their worksite will be the focus of a new statewide breast cancer education program operated by the Missouri Cancer Control Program in conjunction with the American Cancer Society.

Five nurse educators will establish and conduct breast cancer education programs for women at selected worksites throughout the state. The programs will focus on risk factors, signs and symptoms of breast cancer and the technique of breast self examination.

A statewide media campaign will utilize radio and television spots to increase public awareness of breast cancer and the key barriers in early detection.

In addition, a baseline telephone survey will gather data on the knowledge levels, attitudes and breast self examination practice habits of Missouri women.

Women participating in the program will be encouraged to contact their local physician if a lump or warning signal is discovered.

MSMA House to consider 29 resolutions

Twenty nine resolutions have been introduced to date for consideration by the MSMA House of Delegates at the 1981 Annual Session.

These resolutions, in addition to the committee and commission reports and Council minutes, will be referred to Reference Committees for debate.

According to the MSMA Bylaws, any resolution not introduced in the Delegates Handbook must be made available to the House of Delegates 24 hours before the session in which it is to be introduced. Sufficient copies of the resolutions or funding for them must be supplied by the individual or society introducing the resolution.

At the second session of the House, the same procedure must be followed, but such introduction is allowed only if approved by two thirds of the delegates voting. At the final session of the House, a unanimous vote of the delegates is required for introduction.

The resolutions submitted to date are:

No. 1 — Hospital Governing Bodies
No. 2 — Annual Physicals for Patients in Long Term Health Care Facilities
No. 3 — Smoking and Health
No. 4 — Designation of Trauma Centers
No. 5 — Amendment of the Present Licensure Board Act for Physicians
No. 6 — Medicaid Study
No. 7 — Insurance Companies, use of the phrase, "Usual, Customary and Reasonable."
No. 8 — Nursing Home Visitation
No. 9 — Report on Public Relations Program
No. 10 — Medical Care Under CHAMPUS
No. 11 — Caring for the Poor
No. 12 — Repeal of PSRO
No. 13 — Repeal of Medicare
No. 14 — Repeal of Medicaid
No. 15 — AMA Membership
No. 16 — Repeal of PSRO's
No. 17 — Medical Society Interchange with Students and Professors
No. 18 — Disaster Planning
No. 19 — Health Care Delivery to the Poor
No. 20 — Promoting Medical/Nursing Understanding
No. 21 — Injuries to Institutionalized Patients
No. 22 — Funding of Medicaid
No. 23 — Membership Delinquency Date
No. 24 — Physician's Code of Ethics
No. 25 — Repeal of HSA Legislation
No. 26 — Medicaid Level of Payments
No. 27 — Local Problems, Local Action
No. 28 — Emergency Room Physicians
No. 29 — Opposition to Expansion of Optometry

Nursing Home Standards will not be implemented

The Missouri Department of Social Services has announced that the Division of Aging's Proposed Standards for Nursing Homes will not be implemented as published in the *Missouri Register*. Barrett Toan, director of the department, indicated that serious questions must be answered about the fiscal impact of the standards on the State's economy. He has put the regulations "under advisement" pending further fiscal analysis.

Richard V. Bradley, M.D.
President

Eugene T. Hansbrough, M.D.
President-Elect

Dr. Hansbrough to become MSMA President

A Poplar Bluff physician will become the new leader of the Missouri State Medical Association on Saturday night, April 11, at the Annual MSMA President's Banquet at the Chase Park Plaza Hotel in St. Louis.

At this banquet, President Richard V. Bradley, M.D., a St. Louis general surgeon, will present the MSMA gavel to President-Elect Eugene T. Hansbrough, M.D., a Poplar Bluff general surgeon.

Dr. Hansbrough was elected to the MSMA Council in 1969, representing the Tenth District. He is the Immediate Past-Chairman of the Council.

He has served the medical profession for many years and in a number of capacities. Dr. Hansbrough is a member of the American Medical Association, the American College of Surgeons and the Southwest Surgical Society. He also served as a clinical professor of surgery at the University of Arkansas for several years.

In addition to serving as chairman of the Board of Trustees of Three Rivers Junior College, Dr. Hansbrough was involved with the Missouri and Bi-State Regional Medical Programs.

Dr. Hansbrough received his M.D. from the University of Arkansas. He spent his internship at Indianapolis General Hospital, Indianapolis, Indiana and then took his residency at the Veterans Administration Hospital in Little Rock, Arkansas.

Discuss the Issues with Your AMA Delegates

At the MSMA Annual Session in St. Louis, Missouri physicians will have the opportunity to talk with their AMA delegates and voice their opinion on how they feel the AMA should be handling medical issues.

"Discuss the Issues with Your AMA Delegates" will be an open forum type discussion between Missouri's AMA Delegates and Alternates and any interested physicians.

In addition, Joseph F. Boyle, M.D., vice chairman of the AMA Board of Trustees, will be present at the meeting to give the AMA point of view.

The discussion will be held from 3:00-4:00 p.m. on Friday, April 10 in the Swedish Room of the Chase-Park Plaza Hotel.

Openings available for Office Management Workshops

Physicians, medical office staff and medical office managers are encouraged to sign up now for the three half day medical office management workshops sponsored by the MSMA. Although there are still some openings available, the enrollment for each workshop will be limited to the first 50 registrants.

The workshops will be held May 19-20 in Joplin and May 21-22 in Springfield and will cover Better Collections, Billing and Insurance Methods; Reception and Patient Flow Techniques; and Financial Control for Physicians (physicians only).

If you are interested in attending these workshops, please contact the MSMA Office, P.O. Box 1028, Jefferson City, MO 65102.

Council responds to Division of Health proposals

During the February meeting, members of the Council authorized MSMA President Richard V. Bradley, M.D., to inform the State Board of Health of the MSMA position on the proposed changes in the present hospital licensure rules and regulations concerning medical staff.

The Council also responded to the Division of Health proposal to categorize hospitals in Missouri as trauma centers and voted to submit a resolution on this subject to the MSMA House of Delegates during the 1981 Annual Session.

At the request of the Committee on the Impaired Physician, the Council approved sponsorship of a program on impairment at St. Louis University Medical School, provided that the Committee provide a written critique on the program.

The Council also voted to establish the following procedures for candidates for AMA offices, councils, and committees who seek MSMA endorsement:

1. The candidate should consult with the Missouri AMA delegation.
2. The candidate should submit a written request to the MSMA Council for support of his candidacy. The candidate should outline his reasons for wanting the position, his goals if elected and his plans for communication with the delegation and the Council.
3. The candidate should submit a curriculum vitae.
4. Letters of support for his candidacy from his local medical society, specialty society, AMA and/or other medical leaders will be helpful to the Council in arriving at a decision.

MSMA endorsement of a candidate indicates that the candidate will communicate with the MSMA Executive Council and the AMA delegation at regular intervals.

In other action, The Council:

- approved the report of the Committee on Legislative Affairs regarding the progress of bills before the 1981 Missouri General Assembly.
- reappointed Wilfred E. Wooldridge, M.D., as editor of MISSOURI MEDICINE.
- voted to award appreciation plaques to all retiring Councilors retroactive to 1980 and to present medallions to all past presidents to commemorate their MSMA presidency.
- approved the Constitution and Bylaws and issuance of a charter to Mineral Area Medical Society.
- heard and approved the report of the Commission on Public Affairs.
- voted to support the reinstatement of funds for the family practice residency program for the fiscal year 1981 and the inclusion of the program in the state's 1982 budget.
- adopted the report of the meeting of the Commission on Medical Legal Affairs with the medical legal committees of the Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Bar Association.
- approved the report of the Commission on Medical Economics.
- appointed H. Peter Ekern, M.D., chairman, Ben A. Moranville, M.D., and John I. Matthews, M.D., to the Ad Hoc Committee on Nursing Homes.
- approved the report of the Ad Hoc Committee on Health of School Personnel.

AMA found innocent of antitrust charges

The AMA and 12 other defendants were found innocent of all antitrust charges brought against them by five chiropractors in Chicago. The lawsuit, known as Wilk vs. AMA, went to trial December 8, 1980 and the jury voted unanimously for acquittal on January 30, 1981.

Although an appeal is expected, AMA Executive Vice President James H. Sammons, M.D., said that the verdict "will have a significant impact on other cases challenging the medical profession's right to speak out on public health issues."

The five chiropractors in the suit had charged that the AMA and other defendants entered into a "conspiracy to monopolize all hospital delivery systems in this country." They also charged the defendants with conspiring to isolate and eliminate chiropractic as an unscientific cult and the practice of chiropractic as a hazard to the health of the public.

The AMA maintained that it had not restrained the practice of chiropractic and it was exercising its First Amendment rights to speak as a scientific organization in the public interest in health matters.

Resident physicians can still attend workshop

There are still openings for resident physicians to attend the "Establishing Yourself in Medical Practice" workshop, April 30-May 1, 1981, at the Chase-Park Plaza Hotel in St. Louis.

The two day program is designed to provide physicians with practical information about the business aspects of setting up a private practice of medicine. Physicians who have attended past MSMA sponsored workshops were very enthusiastic about the program.

If you would like to attend, please register as soon as possible. The registration fee for the two day program is $85.

For additional information, see the January issue of the MSMA News Round-up or write to the MSMA, P.O. Box 1028, Jefferson City, MO 65102.

MSMA travel accident insurance increased

The MSMA Council recently increased the MSMA travel accident insurance from $25,000 to $100,000. This insurance covers all MSMA Officers, Councilors, Delegates, Committee and Commission members and staff travelling while on Association business.

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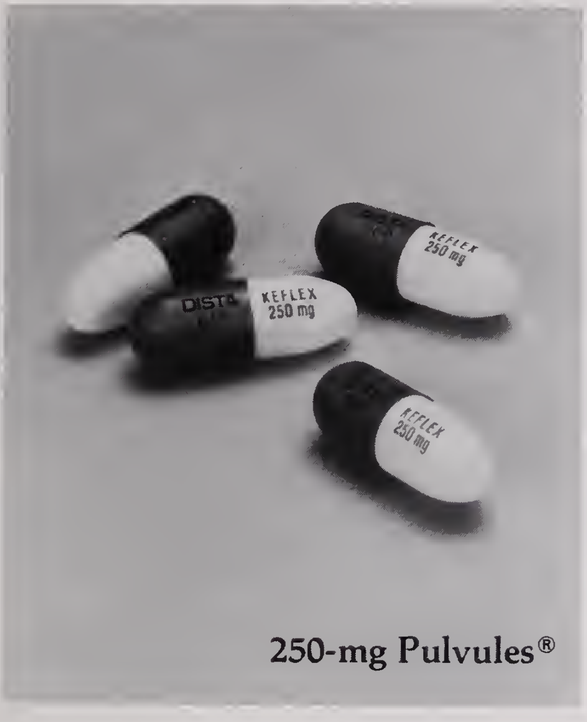

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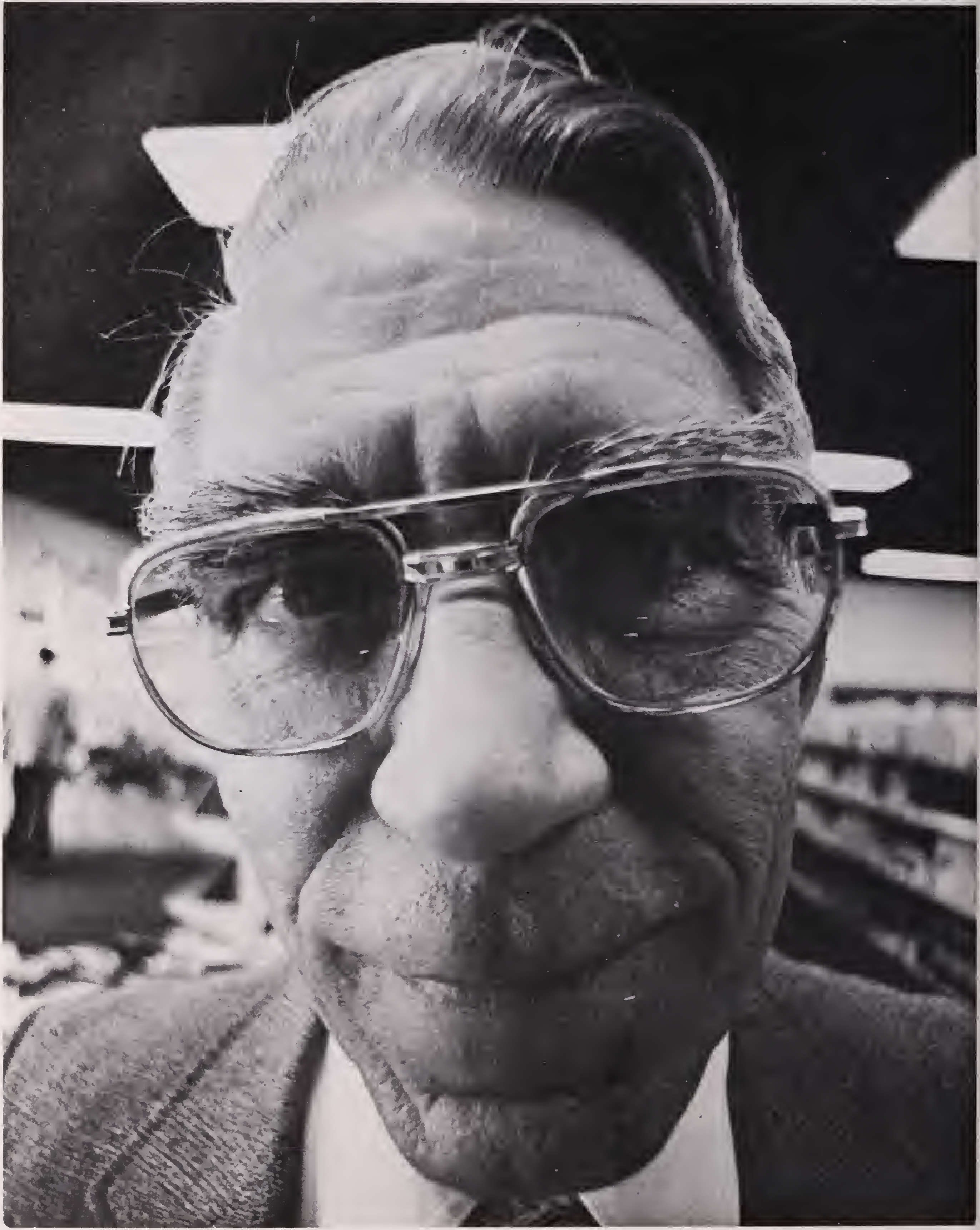

Facts, like faces, are easily distorted.

Editor's Corner

HOW GOOD IS OUR "FREE PRESS"?

From its earliest days, the United States of America cherished the concept of a free press. This freedom implied the untrammeled privilege to disseminate information to the public by whatever news medium operated at that time. There were further implications. It also assumed this would assure an informed citizenry. All this, in turn, would make government responsible for its actions.

At least in principle, the free press has generally worked well for America. Open discussion of national problems and unrestricted airing of opinion has resulted. By contrast, one can view the Soviet press which, in effect, is an agency for propaganda.

But I am increasingly concerned about your and my free press in our America. I am concerned, not only by its freedom but by its abuse of freedom. Freedom necessarily carries with it a heavy responsibility to behave correctly. Without correct behavior, freedom can subtly become an instrument of wrong. We are seeing that wrong every day in current news reporting BECAUSE WE ARE NOT GETTING THE REPORTING OF NEWS. WHAT WE RECEIVE IS AN EDITORIALIZING ON THE NEWS; THE REPORTER'S VIEW OF WHAT THE NEWS SHOULD MEAN.

Nowhere do we see this more than on national television. A prime example was the smirking dissection of President Reagan's lucid statement of policy on the evening of February 5, 1981. Whether one agreed or disagreed with the President, the fact remained that his statement was forthright, simple, and perfectly clear.

The address was immediately followed by a news commentator and his acquaintance who, with great smiles of assurance, told us what the President meant. They then informed the American people that the President was a child lost in the forest of economics, that he would be overwhelmed by the hard realities of politics and that their judgment was much more to be trusted than that of the person who was overwhelmingly placed in office by the people.

In this sort of atmosphere, how "free" is our press and how desirable is that freedom? Instead of being free to report the news is it not also free to distort the news?

This is a problem of great delicacy. Official suppression of opinion would almost certainly lead to an increasing control of the press because power is malignant. But one must consider whether that might be any worse than what we have now.

How much better it would be if our press would begin to clearly report the news and then still be free to editorialize — but make an indelible distinction between the two.

From:
"Conversations with Myself."

Wilfred E. Wooldridge

Wilfred E. Wooldridge, M.D.

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Anxiety: the therapeutic dilemma

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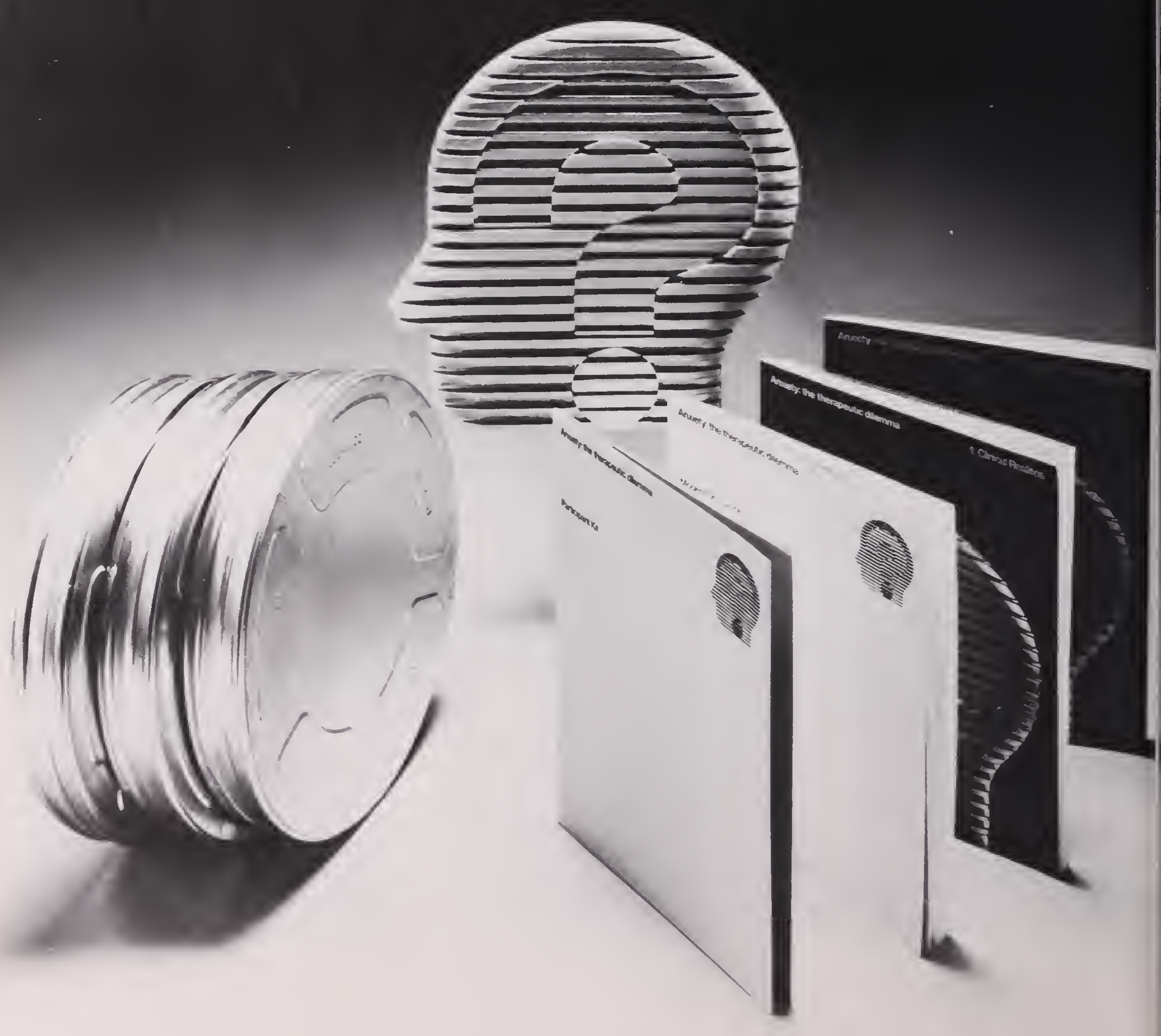
Anxiety
Anxiety: the therapeutic dilemma
1 Clinical Realities
Anxiety: the therapeutic dilemma
Anxiety: the therapeutic dilemma
Participant Kit

Ideas about anxiety management are changing. Problems have surfaced. There is concern about dependence on minor tranquilizers and new findings on receptor sites in the brain. There is a trend toward short-term therapy and interest in nondrug alternatives. Because anxiety can disable, the need to treat continues in daily practice. Primary care physicians require up-to-date information.
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The complete program, **Anxiety: the therapeutic dilemma**, is designed to provide up to a total of 26 credit hours in Category 1, PRA/AMA. The maximum number of hours may be obtained as follows:

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Anxiety: the therapeutic dilemma
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RALPH P. PFIEFFER, SR., M.D., *Springfield*

Percutaneous Transluminal Angioplasty

A Promising New Procedure

Percutaneous transluminal angioplasty has recently received enthusiastic support in both the scientific literature and lay press. Balloon dilatation of suitable arteriosclerotic vascular lesions is a relatively simple and speedy technique with few immediate complications, but its long-term effectiveness remains to be completely evaluated. The authors report a case typical of their experience with this new technique and briefly discuss its past development and current status.

Dr. Bartlett is from the Department of Diagnostic Radiology at Lester E. Cox Medical Center and Dr. Pfieffer is in the private practice of surgery.

Balloon dilatation of arteriosclerotic vascular lesions using angiographic catheter technique is a new treatment alternative which has only very recently become generally known and accepted in North America. The first successful transluminal dilatation was described in 1964 by Dotter, who utilized a 12 F tapered dilatation catheter (Van Andel).[1] His work sparked little general medical interest, however, and it was not until 1976, when Andreas Grüntzig of Zurich developed and introduced a double lumen, that a polyvinyl balloon catheter realized the full potential of the technique.[2]

The most important characteristic of the Grüntzig balloon was its ability to maintain a constant cylindrical configuration during inflation, thus permitting segmental, smooth arterial dilatation despite the variable vessel wall resistance often encountered with atherosclerotic fibrosis and calcification. The following case report serves as an illustration of this technique and its therapeutic value as well as a guide to selecting those patients most likely to benefit from its use.

Case Report

A 38-year-old hypertensive man first noticed pain and weakness in his left hip and leg with exercise six months prior to hospitalization. His claudication steadily progressed over the next few months, and he was admitted to the Lester E. Cox Medical Center for further evaluation. Physical examination showed markedly diminished left leg pulses that were confirmed by vascular laboratory (Doppler) study. Peripheral arteriography demonstrated a focal 95% stenotic lesion of his left common iliac artery, with a distal circulation otherwise intact. This isolated lesion in a relatively young patient was felt to be ideally suited for percutaneous transluminal angioplasty.

The patient was given persantine and aspirin for two days. Routine aorto-iliac arteriography then was performed to recheck appearance of the lesion (Fig. 1A). Arterial pressure measurements revealed a difference in systolic readings of 45 mm Hg across the stenosis (Fig. 2). Catheter exchange was accomplished with the 7 F Grüntzig system (Fig. 3) and 5,000 units of heparin injected intravenously.

The Grüntzig balloon (4 cm in length, 6 mm maximum width) was then positioned at the level of stenosis and an additional 2,000 units of heparin were injected into the iliac artery. Inflation was carried out to 60 psi and the balloon maintained in the completely inflated configuration for one minute. This procedure

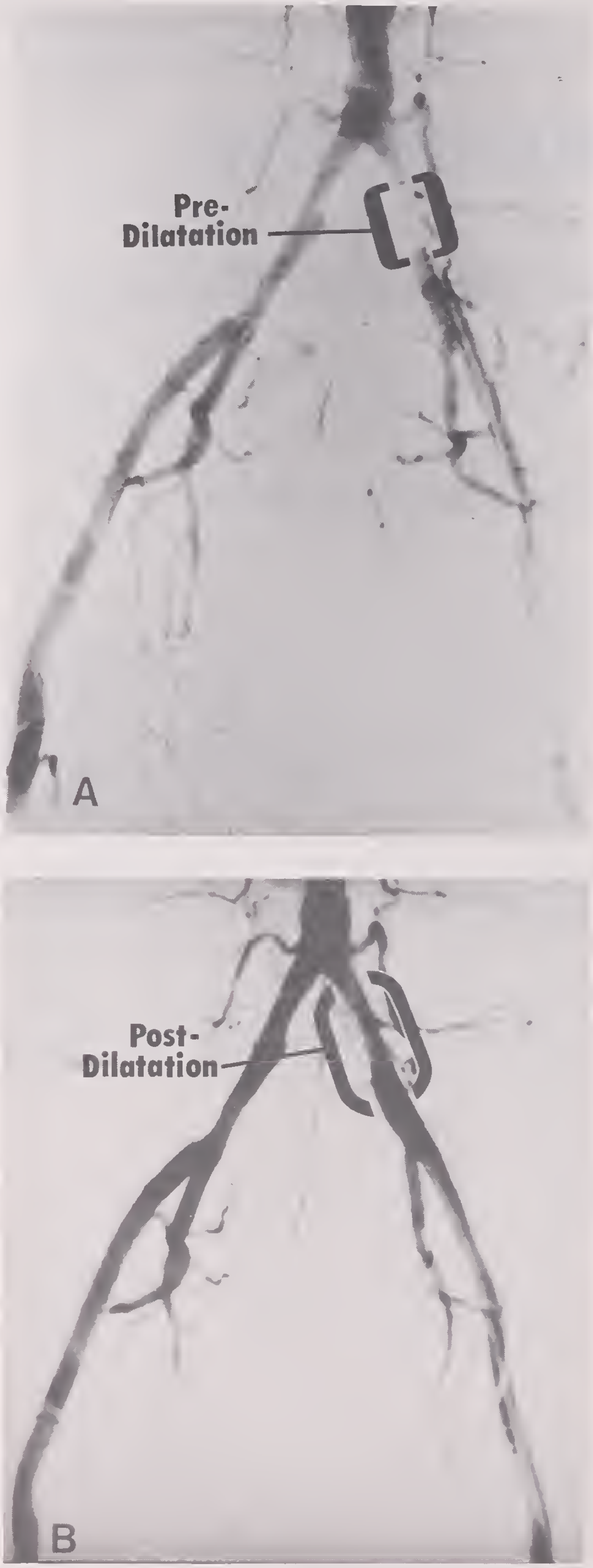

Fig. 1 Aorto-iliac arteriography shows high-grade segmental stenosis of the left common iliac artery (A) to be almost completely relieved following angioplasty (B).

was repeated once with the patient noticing no discomfort. Repeat angiography showed almost complete restoration of luminal diameter to normal (Fig. 1B) and repeat pressure measurements showed disappearance of the former gradient. Vascular laboratory studies confirmed the correction of the lesion.

Moderate left low back pain developed the first night, prompting concern for possible intimal dissection or aneurysm formation despite stable vital signs, peripheral pulses and hematocrit value. Accordingly, a pelvic CT scan was obtained. It revealed a normal iliac artery with no evidence of hemorrhage (Fig. 4). Back discomfort subsequently subsided over the following two days. Treadmill testing showed normal exercise tolerance. He was discharged on the fourth hospital day, in an asymptomatic state.

Discussion

There are now over 200 scientific publications dealing with transluminal angioplasty, the popularity of which has rapidly increased since the Grüntzig catheter became generally available in the late 1970s.[3] It is now clear that many types of severe vascular luminal stenosis can be effectively treated by this means and that even a short, completely occluded vessel segment, with demonstrated distal reconstitution, may actually be recannalized.[4-6]

An understanding of what actually occurs when an arteriosclerotic intimal lesion is dilated remains remarkably incomplete. Formerly, it was thought the plaque was forced peripherally against an intact, confining outer wall. This would compress the solid constituents into a smaller volume and induce a redistribution of the more liquid component ("cold flow") along the vessel wall.[7] More recently, it has been observed that atheromatous material is incompressible, and many current investigators believe that balloon inflation produces actual cracking and rupture of both the intima and media, which allows these structures to expand and carry with them the atheromatous debris. A vessel so altered may then also be capable of at least partially adapting to varying peripheral circulatory needs.[8]

The advantages of transluminal angioplasty can be listed as follows:

(1) The procedure is short and performed under local anesthesia. It causes little discomfort. It can be done even if the patient is elderly and frail.
(2) Hospitalization is relatively brief (three to four days).
(3) Unlike grafting, angioplasty can be easily repeated if restenosis develops.

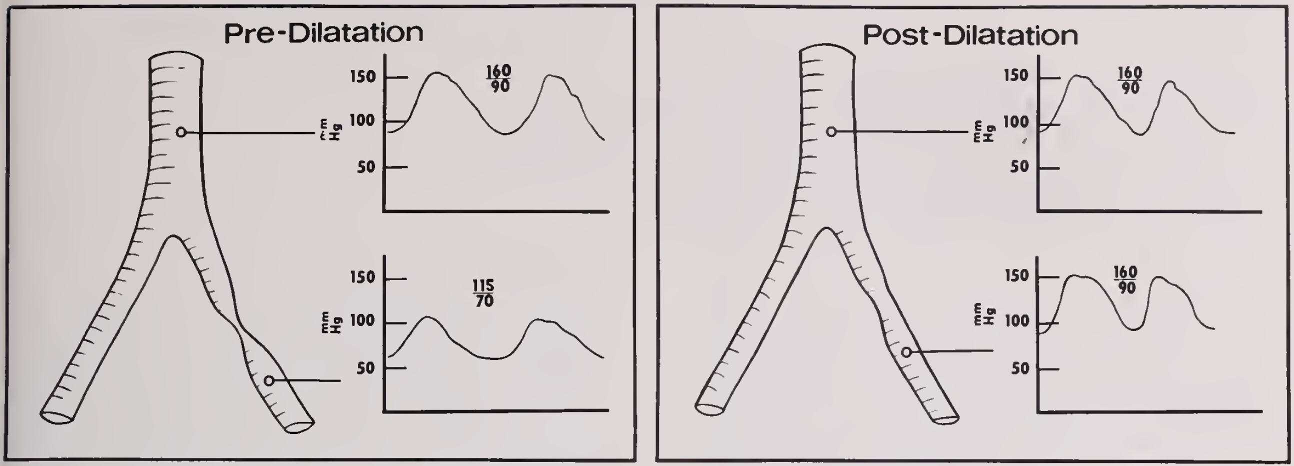

Fig. 2 Intra-arterial pressure measurements revealed a systolic gradient of 45 mm of Mercury across the iliac stenosis, which was eliminated by the procedure.

(4) Failure of angioplasty neither precludes nor prejudices the outcome of subsequent surgery.

(5) The patient's saphenous veins remain available for possible future coronary bypass.

Potential disadvantages include the hazards associated with any angiographic procedure, such as contrast reaction and hematoma formation at the puncture site. Downstream embolization by broken off pieces of plaque appears to be more of a theoretical than actual problem. None of the Dotter's 556 cases had such a significant problem.[7] Consideration must also be given to the possibility of vessel rupture or aneurysm formation. The only fatality of which we are aware resulted from arterial laceration and subsequent complications following attempted iliac dilatation.[9]

The current status of percutaneous transluminal angioplasty needs frequent review. Long term follow-up is of necessity inadequate at this early stage of development, but recent reported experience is very encouraging. Van Andel has followed 50 patients with treated iliac lesions for 33 months and observed lasting results in 92% of them.[10] It must be stated that the criteria for selecting appropriate operable cases is not yet established.[11] Finally pre- and post-percutaneous

(Continued on page 129)

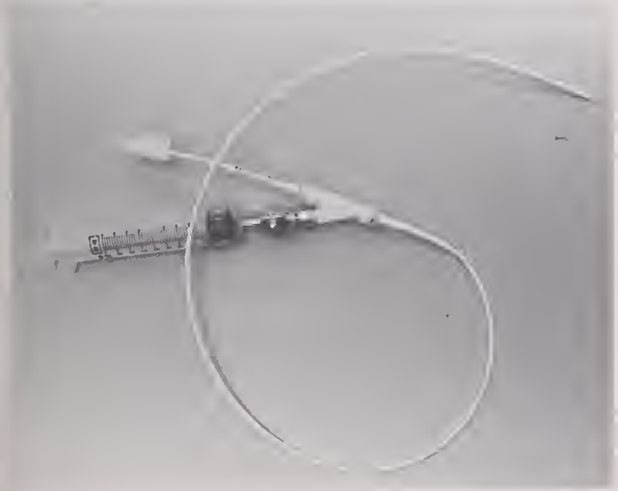

Fig. 3 This Grüntzig catheter of Cook Instruments Inc., Bloomington, Ind. has a balloon length of 4 cm and a maximum internal diameter of 6 mm.

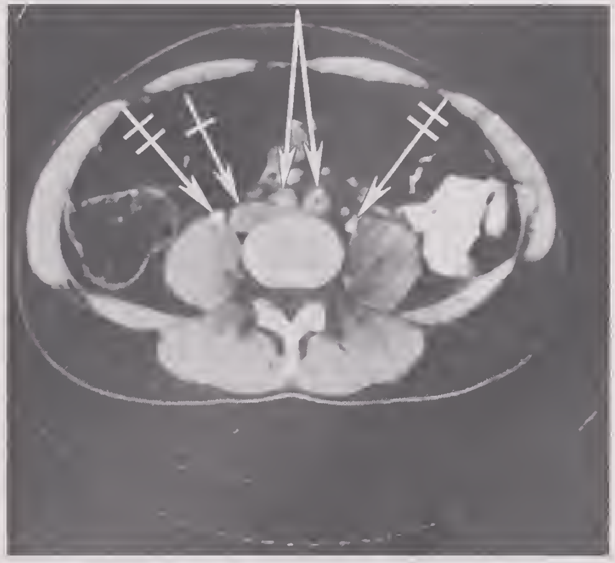

Fig. 4 A pelvic CT scan at 24 hours after angioplasty shows normal iliac arteries, with no evidence of aneurysm formation or hematoma. *Plain arrows* indicate iliac arteries. *Single cross-hatched arrow* shows the confluence of the inferior vena cava. *Double cross-hatched arrows* point to the ureters as they pass over the psoas muscle.

STEPHEN HAMBURGER, M.D., *Kansas City*

Fluid and Electrolyte Therapy in Diabetic Ketoacidosis

In recent years, there have been several comprehensive reviews of diabetic ketoacidosis (DKA).[1, 2] DKA remains a potentially fatal condition. Although mortality has progressively fallen, fatality may still remain 5% to 10%.[3] Most recent interest in the therapy of DKA has focused on low-dose insulin administration. Possibly more important but less dramatic have been advances involving other components of treatment including (1) salt and water, (2) potassium, (3) alkaline agents and (4) magnesium.

Salt and Water Therapy

In all cases of well established DKA, there exists a significant total body depletion of sodium and water. Estimated sodium loss is approximately 8-10 mEq/kg and water 75-100 ml/kg of body weight.[4] Losses occur principally from the osmotic diuresis, as well as vomiting and diarrhea.

In addition, insulin directly stimulates renal tubular reabsorption of sodium. Thus, the deficiency of insulin in DKA may cause additional renal wasting of sodium.[5] Studies have shown that the urinary output in DKA resembles half-normal saline with 35-63 mEq/liter of potassium.[4] Regardless of this hypotonic urinary loss, serum sodium levels in untreated DKA are mostly low or normal. This may occur secondary to the "pseudohyponatremia" induced by hyperglycemia. Work by Katz has demonstrated that for every 100 mg percent elevation of glucose above 100 mg%, the serum sodium is reduced by 1.6 mEq/ml.[6]

In calculating the water deficit in a patient with DKA, this relationship must be known. Also, an elevation in serum triglycerides may result in factitious hyponatremia.[7] A normal or increased serum osmolality suggests this latter possibility. Prompt and vigorous replacement of the salt deficiency constitutes an important component in the early therapy of DKA. The average patient will require about 6-8 liters of normal and/or half normal saline during the first 24 hours of treatment of severe DKA.[8, 9] Whether normal or half normal saline is used depends on the status of the intravascular volume and serum osmolality. The intravascular volume, which is most easily corrected by normal saline, is measured by following the criteria of volume repletion such as blood pressure, pulse, neck vein distention, mentation, skin temperature and urine output. Use of a central venous pressure (CVP) line is discouraged unless clearly indicated. If indicated, Swan-Ganz monitoring may be more appropriate. During intravascular volume repletion, the patient must be constantly monitored not only for adequacy of volume replacement but also for symptoms and signs of sodium overload such as hypertension or congestive heart failure.

It is important to realize that the serum glucose may fall significantly with volume expansion alone. In one study, the initial mean plasma glucose concentration fell by 18% with the infusion of approximately 1.5 liters of fluid over several hours prior to insulin injection.[10] Thus, the early fall in plasma glucose levels must be cautiously interpreted with simultaneous volume repletion and insulin administration. Continuous monitoring of plasma glucose levels will identify a sustained drop. Initial values should include measurement of the plasma osmolality as this number will help guide water replacement. Plasma osmolality may be estimated by the following formula: $2\ (\mathrm{Na}+)\ +\ \mathrm{glucose}/18\ +\ \mathrm{BUN}/2.8$. Most patients with DKA will have some degree of increased plasma osmolality due to hypotonic urinary loss. With repletion of the intravascular volume by saline solutions and lowering of the plasma sugar by insulin, much of the hyperosmolality will be corrected. If the plasma osmolality is still elevated, the use of hypotonic fluids such as half normal saline or free water by mouth will lower the osmolality. Rapid correction of the free water deficit is undesirable as it has not been shown to be clinically beneficial and might be potentially harmful in regard to producing cerebral edema.

Potassium Therapy

Both old and recent studies have shown a significant loss of total body potassium in DKA.[11, 12] Despite the average loss of approximately 6 mEq/kg of body weight (some patients may lose as much as 10 mEq/kg), most patients present with normal or high potassium levels secondary to the acidemic shift of intracellular potassium, tissue catabolism and decreased renal excretion.[4] In one study, the mean admission concentration of potassium was 5.3 mEq/liter (range 2.1-8.4) with 4% of the patients being hypokalemic.[12]

It must also be appreciated that treatment will cause a significant fall in the potassium level. This drop is secondary to hydration, urinary excretion of potassium, correction of the acidemic state and insulin-influenced cellular uptake of potassium. Hockaday has shown that an initial mean potassium level of 4.4 mEq/liter decreased to 3.5 mEq/liter within one hour of initiation of therapy if no potassium supplementation was given.[13] Beigelman has shown that approximately 170 mEq of potassium (range 0-620 mEq) has to be given by vein in the early hours of therapy to maintain a normal serum potassium level.[14]

Extreme excess or deficiency of potassium is potentially lethal. In the absence of known hyperkalemia or ECG changes of hyperkalemia, it is appropriate to begin potassium administration with other modalities of therapy. If the potassium level is elevated, potassium should be withheld until the potassium concentration is in the high normal range. Oliguria and renal failure are relative contraindications to potassium administration. Potassium levels may fall in these patients secondary to rehydration, correction of the acidemic state and insulin-influenced cellular uptake of potassium. Frequent measurement of potassium levels will be required to determine the necessity of replacement in all patients. Serial ECGs to determine the prevailing serum potassium are not as useful as expected because many changes are nonspecific. Potassium should be administered in two forms, potassium chloride and potassium phosphate. After stabilization, oral potassium should be given for a few days to replete body stores.

Alkali Therapy

Alkali therapy in DKA remains controversial. The acidemic state in DKA results from the excessive production and under-utilization of several hydrogen-ion donating ketone bodies. Alkali therapy has been used empirically in DKA supposing morbidity and mortality were associated with the acidosis, then correction of the pH would be beneficial. In addition, it is thought that pronounced acidosis might compromise the cardiovascular system, especially myocardial function. Thus, it would seem logical to treat most cases of DKA with alkali. However, such therapy is invalid for several reasons: (1) reversibility of the ketotic state by insulin, (2) inconclusive evidence as to the detrimental effect of the acidemic state on cardiovascular and myocardial function, and (3) detrimental effects of alkali therapy.

1. Several studies have shown that both the overproduction and under-utilization of the acidosis-producing ketone bodies may be reversed by a circulating insulin concentration of approximately 100 μU/ml.[15, 16] Therefore, at insulin levels readily achieved by current therapy, the ketoacidotic state is corrected within 12 to 24 hours.[17] This fact is repeatedly documented as DKA patients are returned to normal without resorting to alkali therapy.

2. A major fear of pronounced acidosis is the potential detrimental effect on cardiovascular function. Recent studies have cast doubt on this fear. Several groups have reached different conclusions in regard to the effect of the acidemic state on the cardiovascular system and myocardial function, thus necessitating rethinking of the role of alkali therapy.[18-20]

3. Alkali therapy is not without risk. In untreated ketoacidosis, the oxyhemoglobin dissociation curve approximates a normal P_{50} (arterial oxygen-tension at which 50% of hemoglobin is oxygenerated)[21] (Fig. 1).

This near normal P_{50} is due to the counterbalancing effect of acidosis and the low 2,3-diphosphoglyceric acid (2,3-DPG). A too rapid or overcorrection of the acidemic state may shift the

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Diabetic ketoacidosis remains a potentially fatal condition. Although mortality has progressively fallen, fatality still remains at approximately 5%. Most recent interest in the therapy of diabetic ketoacidosis has focused on low-dose insulin administration. This article presents a review of other components in the therapy of this illness including salt and water replacement, potassium administration, use of alkaline agents and magnesium administration.

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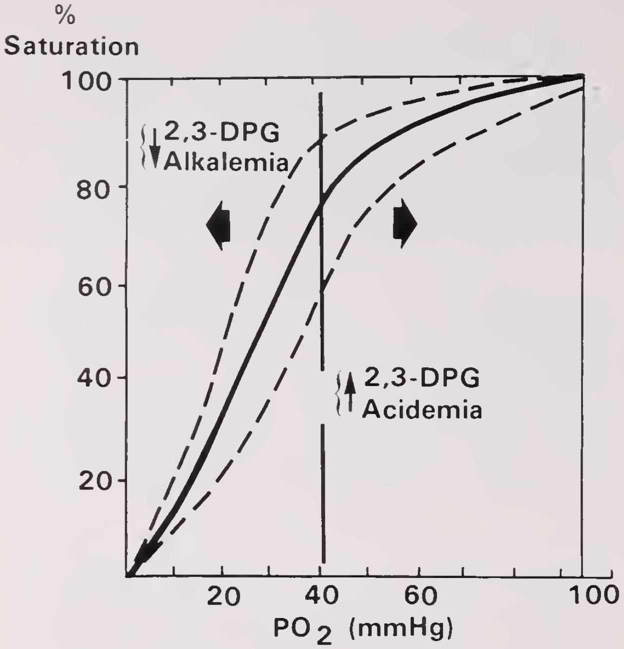

Fig. 1 Oxyhemoglobin dissociation curve and factors which affect it. Decreased 2,3-DPG concentrations, alkalemia and a decreased temperature will shift curve to the left, resulting in an increased affinity of hemoglobin for oxygen with possible tissue hypoxia. Increased 2,3-DPG acidemia and an increased temperature will produce an opposite effect.

oxyhemoglobin dissociation curve to the left producing tissue hypoxemia secondary to the increased binding of oxygen by hemoglobin. In addition, alkali therapy has been shown to accentuate the intracellular shift of potassium and phosphate.

To maintain normal concentrations of potassium and phosphate, exogenous administrations of these substances may need to be increased. Hypophosphatemia has been shown to have several deleterious effects including myocardial depression, white blood cell abnormalities, central nervous system dysfunction and insulin resistance.[22] Also, injudicious use of alkali in DKA is associated with "paradoxical" cerebospinal fluid acidosis.[23] Because of the different permeability of the blood brain barrier to CO_2 and HCO_3, rapid correction of the acidosis with alkali therapy will cause an accentuated drop in cerebrospinal fluid pH which normally occurs during therapy. In addition, this "paradoxical" intracellular acidosis may occur in other organ systems. The clinical consequences of this "paradoxical" acidosis is largely unknown, but one study suggests a detrimental effect on neurological function.[23] Lastly, alkali therapy has been frequently associated with tetany secondary to the shift of calcium or magnesium or both to the bound form.[24]

Weighing the benefits and risks, it is clear that alkali should be used in very few cases of DKA. Indications for alkali infusion are unclear but might include (1) an arterial pH of 7.10 or less, (2) significant cardiac arrhythmias associated with a low arterial pH and (3) hypoventilation secondary to severe acidosis. The latter may be suggested by an abnormal elevation of the pCO_2, according to Winter's formula in a primary compensated metabolic acidosis.[25]

$$\text{Expected } pCO_2 = 1.54\,(HCO_3-) + 8.34 \pm 1.1$$

If the pCO_2 is higher than expected, a mixed acid-base disturbance (metabolic and respiratory acidosis) is occurring. Very infrequently (usually at a pH of about 6.8) the hypoventilation may be secondary to acidemic depression of the breathing center.[26] In any case, the alkali of choice is bicarbonate and therapy should be given to correct the pH to no higher than 7.20 and a bicarbonate level of about 10mEq/liter.[27] The latter assures some margin of safety if the acidemic process worsens. If used, bicarbonate therapy should be slowly infused and its effect on arterial pH frequently monitored. Caution should be used in the use of alkali therapy as no study has shown a clear benefit of its use and several groups have reported no difference or a possible negative effect when alkali is included in the treatment.[28-30]

MAGNESIUM THERAPY

DKA is associated with a significant urinary loss of magnesium.[31] As with potassium, the initial magnesium level might be normal or high but tends to drop with initiation of insulin and fluid therapy. Clinical symptomatology of hypomagnesemia is similar to hypocalcemia and includes tetany, seizures, cardiac arrhythmias and central nervous system depression. A serum magnesium level should be drawn upon presentation and, if low, magnesium should be administered preferably by vein. This is particularly true in the early therapy of DKA as the intramuscular pickup might be less than optimal until adequate intravascular volume has been achieved. In the presence of seizures or arrhythmias of uncertain etiology, magnesium therapy should be considered even if the magnesium level is normal. Magnesium should be administered very cautiously, if at all, in renal insufficiency. Frequent blood levels should be checked as should the deep tendon reflexes of the patient. As magnesium levels rise to toxic concentrations, deep tendon reflexes diminish. Magnesium sulfate or chloride may be used.

Therapy for DKA must be individualized. One negative aspect concerning advances in low dose insulin therapy is that many practitioners have relegated other components in the management of DKA to lesser importance. This philosophy could not be further from the truth. Only with total patient management will continued inroads in the morbidity and mortality of DKA be made. Proper fluid and electrolyte therapy are important components in the care of the patient with pronounced DKA.

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Percutaneous Transluminal Angioplasty

(Continued from page 125)

transluminal angioplasty laboratory ultrasound studies are important to evaluate results and to follow patients in a noninvasive manner.

Future application appears promising. While current use is largely confined to the leg, visceral and renal arteries, efforts are underway to extend the procedure to the carotid and coronary vessels and to venous-arterial grafts.

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RICHARD J. BOWER, M.D., FREDERIC ASKIN, M.D.
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Unusual Cause of Stridor-Staph Mediastinal Abscess

Case Report

ACUTE RESPIRATORY SYMPTOMS in children can occasionally result from extrinsic tracheal compression by neoplasms, bronchogenic cysts, duplications or congenital cystic lesions.[1] The trachea and superior vena cava also can be slowly compressed by a variety of neoplasms, cysts and infections of the mediastinum.[2, 3] Granulomatous disease, such as histoplasmosis or tuberculosis, can give rise to mediastinal inflammatory reaction which may constrict or compress the trachea, a major bronchus or the superior vena cava.[4, 5] Under any of these circumstances, stridor may be the presenting symptom.

The mediastinal lymph nodes receive drainage from the mouth, pharynx, esophagus and lungs.[6, 7] Any infection in these areas could lead to mediastinal lymphadenopathy. It is not unusual for mediastinal lymph nodes to enlarge in response to pulmonary infection, but it is exceedingly rare for mediastinal nodes to suppurate and cause acute respiratory symptoms. In this report, we discuss the case of a three-year-old child with subacute tracheal obstruction related to mediastinal lymphadenitis caused by Staphylococcus aureus.

Neoplasms or congenital cystic lesions occasionally cause extrinsic compression of the trachea in children. Mediastinal lymph nodes often enlarge in response to pulmonary infection, but they rarely suppurate or compress the trachea. Decompression of the trachea was necessary in this 3-year-old boy with a large mediastinal mass of lymph nodes with micro-abscesses.

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CASE REPORT

A three-year-old black boy was seen with symptoms of a "cold" at another hospital six days prior to his emergency admission to St. Louis Children's Hospital. Two days prior to admission, he was also seen at a different hospital where he was started on a regimen of medication for "asthma." No chest radiographs were obtained. His mother had noted that his breathing was much more labored when he was lying down.

Physical Examination: The patient was an apparently healthy black boy with a temperature of 37.5 C, pulse rate of 118 and a respiratory rate of 50. He was noted to have sternal and intercostal retractions as well as obvious inspiratory and expiratory stridor. He had distended neck veins even when in a sitting position. There was no evidence of a Horner's syndrome. The throat was not reddened; no cervical adenopathy was palpable. Auscultation of the chest revealed satisfactory air exchange, but inspiratory and expiratory stridor were present. There was no wheezing and the patient's voice was normal.

Initial Laboratory Data: The hemoglobin level was 10.2 with a white blood count of 14,900. The differential included one stab form, 75 segmented neutrophils, 14 lymphocytes, eight monocytes and two eosinophils. Blood gases revealed a pH of 7.45, a pCO_2 of 35 mm Hg, and pO_2 of 135 mm Hg (40% mask oxygen).

Hospital Course: The original radiograph (Fig. 1) showed deviation and compression of the trachea and upper esophagus by an upper mediastinal mass on the right side. Radiographs of the retropharynx were normal. Barium swallow showed displacement of the esophagus but no evidence of an intrinsic esophageal lesion or foreign body. The patient was admitted to the intensive care unit and observed for several hours. During this time, blood cultures were obtained and the patient was started on a regimen of methicillin and gentamicin.

Our differential diagnosis, after viewing the original x-rays, included neoplasms (including lymphoma, neuroblastoma or teratoma) as well as non-neoplastic cystic lesions (bronchogenic cysts, cystic hygroma, enteric duplication or thymic cyst). Each of these lesions could have become acutely symptomatic because of necrosis, hemorrhage or secondary infection. Because of the persistent stridor and impressive radiologic findings, thoracotomy was undertaken to relieve the

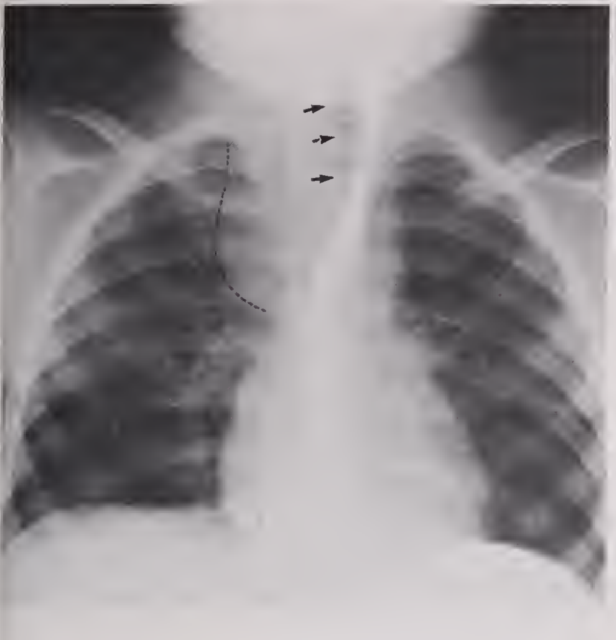

Fig. 1 Original radiograph shows mass in upper mediastinum displacing the trachea and barium filled esophagus.

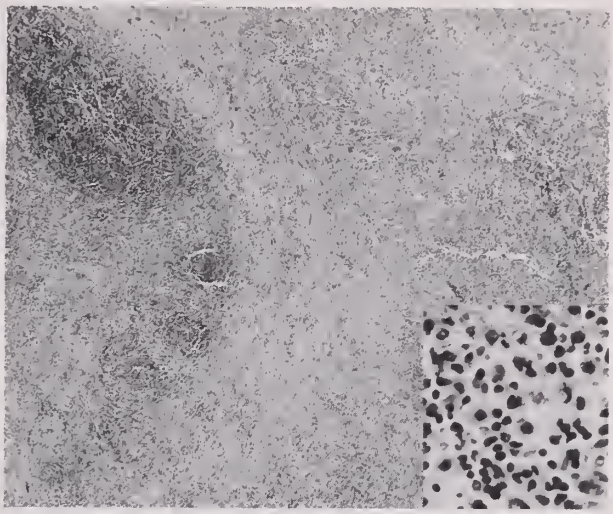

Fig. 2 Low power photomicrograph shows residual lymph node surrounding an area *(inset)* of fibrosis and acute and chronic inflammation. W.U. Ills. 79-11276 and 79-11277 x 38 (inset x 350).

tracheal compression. At the operation, the superior vena cava was found to be draped over a large mass measuring 8 cm x 7 cm x 6 cm. The azygos vein was pushed inferiorly and the mass pushed directly on the lateral wall of the trachea and the esopahgus. A frozen section of a portion of the mass showed lymph nodes with reactive hyperplasia and additional fragments of fibrous tissue with an acute and chronic inflammatory infiltrate. No specific diagnosis could be made. Because of the concern that the tissue sampled could be surrounding an underlying neoplasm, the entire mass was removed and the trachea and esophagus were examined. The trachea showed evidence of chronic compression over a three-cartilaginous ring segment and did not resume a normal configuration immediately. The esophagus appeared to be normal and did not seem to be directly related to the mass. Postoperatively, the trachea returned to normal caliber radiographically in 72 hours.

Pathology: Histologic examination of the resected specimen showed a conglomerate mass of lymph nodes surrounding a central area of necrosis, fibrosis, granulation tissue and acute and chronic inflammation (Fig. 2). Special stains for acid fast and fungal organisms were negative. The lymph nodes showed nonspecific reactive hyperplasia and the overall histologic picture was that of a chronic suppurative inflammatory process with abscess formation involving the lymph nodes and extending into the mediastinal soft tissues. Tuberculin stains and cultures were negative. The blood cultures taken preoperatively grew Staph. aureus with sensitivities identical to those of organisms cultures from the surgical specimen.

Clinical Course: A ten-day course of intravenous methicillin was completed and the patient has had no problem postoperatively. We were unable to find the source of the infection, except that the child had an apparently viral upper respiratory tract infection for the six days prior to his acute symptoms. Other laboratory values in the postoperative period included a normal (86% stimulated) nitroblue tetrazolium dye (NBT), normal immunoglobulin levels and a negative tuberculin skin test. The patient now has a normal chest radiograph at one year and there have been no other infections over the past year.

We were surprised to find an inflammatory mass rather than a neoplasm or a congenital cystic lesion. The distended neck veins in this child were the direct result of a superior vena cava external compression. It is possible that a nonoperative approach, using antibiotics and endotracheal intubation, may have allowed the lesion to resolve in size, but concern over other more probable causes led us to operative intervention.

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JOHN A. CROUCH, M.D., GARY BEAUCHAMP, M.D.
and WILLIAM A. REED, M.D., *Columbia and Kansas City*

Management of Intraoperative and Postoperative Bjork-Shiley Mitral Prosthetic Dysfunction

Case Reports

THE BJORK-SHILEY MITRAL PROSTHESIS has been demonstrated to be durable and reliable with a low incidence of mechanical failure.[1] However, we should like to report two cases of early valve dysfunction because of disc entrapment by the left ventricular wall. One case was recognized during operation and the other in the intensive care unit six hours after operation.

CASE REPORTS

Case #1 A 65-year-old woman was admitted with a history of increasing dyspnea, orthopnea and paroxysmal nocturnal dyspnea of three weeks duration. She had a history of rheumatic fever at age 17 and an episode of endocarditis 25 years prior to admission. Medications included 0.1 mg of digitoxin (Crystodigin) daily and 40 mg of furosemide every other day.

Blood pressure was 150/90 mm Hg; pulse, 86 beats per minutes and irregular; and respirations, 16 breaths per minute. The patient had jugular venous distention with a positive hepato-jugular reflex. Rales were present in the right lung base. Examination of the heart revealed a parasternal heave with the apical impulse at the sixth intercostal space and anterior axillary line. An opening snap was present with a grade 3/6 systolic ejection murmur at the left sternal border. A grade 2/6 diastolic rumble was present at the apex. Examination of the abdomen revealed a large and tender liver.

An electrocardiogram revealed atrial fibrillation with right axis deviation and right ventricular hypertrophy. Cardiac catheterization demonstrated a resting gradient of 23.3 mm Hg across the mitral valve. The pulmonary artery pressure was elevated to 112/50 mm Hg with a mean pressure of 70 mm Hg. The pulmonary artery wedge pressure was 38 mm Hg. The calculated mitral valve area was 0.67 cm^2. The ejection fraction was 65% with no mitral insufficiency or calcification. The clinical impression was that of mitral stenosis secondary to rheumatic fever with congestive heart failure.

On Oct. 4, 1976, via a median sternotomy, left atrial thrombectomy and an initial mitral valvotomy were performed. Because of severe fusion of the chordae tendinae and the presence of sclerotic leaflet tissue, however, it was elected to replace the valve. This was accomplished with a #23 Bjork-Shiley mitral prosthesis positioned with the occluder opening posteriorly.[2] The left atrium was closed and bypass discontinued with satisfactory resumption of cardiac function. While closing the chest, it was noted that even with sinus rhythm, there was an intermittent severe drop of stroke volume.

After further observation and appropriate pressure tracings, it was concluded that the valve occluder was not opening properly. Bypass was reinstituted and the left atrium opened. The occluder could not open completely due to impingement on the left ventricular wall. The valve holder was utilized to turn the occluder 90 degrees in a clockwise fashion. This resulted in free opening of the occluder into the left ventricular chamber. The left atrium was closed and bypass was discontinued. Cardiac function was resumed with a sinus rhythm and consistent stroke volume. The patient was discharged on the 17th postoperative day and at followup in two months, had normal valve sounds and was doing very well.

Case #2 A 49-year-old man was admitted to St. Luke's Hospital on May 23, 1977 complaining of shortness of breath of two weeks duration. He had been on a fishing trip one month prior to admission and developed severe substernal chest pain and diaphoresis. He was seen by his local physician and told that he had suffered a myocardial infarct.

During that hospitalization, he developed heart failure which proved relatively refractory to medical management and was transferred to St. Luke's Hospital for evaluation. Pertinent past medical history included a ruptured intra-cranial aneurysm five years previously. On physical examination, the blood pressure was 118/80 mm Hg in both arms; pulse rate was 100 beats per minute and regular; and respiratory rate was 26 breaths per minute. He had jugular venous distention to 15 cm at 30 degrees. Moist rales were present in the mid and lower lung fields bilaterally. A grade 3/6 holosystolic murmur radiating to the axilla was present, with an S_4 gallop and increased pulmonic component of the second sound.

Electrocardiogram revealed Q-waves in leads I and AVL consistent with lateral wall infarction. Cardiac catheterization revealed O_2 step-up at the atrial level with a superior vena caval saturation of 49.5% and mid-right atrial saturation of 92%. Pressure measurements revealed increased right heart pressure with right atrial pressure being 39/11 mm Hg; right ventricle, 68/20 mm Hg; pulmonary artery, 55/11 mm Hg; and pulmonary artery wedge, 38/12 mm Hg. Left ventricular angiogram revealed moderate mitral regurgitation and an ejection fraction of 80%.

There was moderate three vessel coronary artery disease present on coronary angiography with the most significant disease being present in the small obtuse marginal branch of the circumflex artery. The impression from the catheterization and examination was coronary artery disease with mitral regurgitation secondary to papillary muscle dysfunction, and the presence of a large atrial septal defect with resulting congestive heart failure.

On June 3, 1977, via a median sternotomy, the right atrium was opened and a large secundum type atrial septal defect was encountered. The mitral valve was examined through the atrial septal defect and found to be insufficient because of posteromedial papillary muscle infarction. A #31 Bjork-Shiley mitral prosthesis was used to replace the mitral valve and the atrial septal defect was closed with a dacron patch. The initial postoperative course was satisfactory.

However, six hours after operation, he developed seizure activity and was noted to have electromechanical dissociation. He was treated with closed chest massage, volume expansion and isoproterenol. On auscultation, intermittent valve sounds could be heard and with these, intermittent pulses were present. The diagnosis of prosthetic dysfunction was made, and he was returned to the operating room.

After the patient was on bypass, the left atrium was opened and the occluder did not appear to open fully due to impingement on the left ventricular wall. The valve holder was used to turn the occluder to where it appeared to open and close freely. After the atrium was closed, a prominent thrill was present and a large regurgitation wave was present on measurement of left atrial pressure. The left atrium was then reopened and the valve replaced with a #27 Bjork-Shirley prosthesis.

He awakened approximately 24 hours after surgery and had gradual improvement of central nervous system function with no further cardiac valve dysfunction. He was discharged on the 29th postoperative day. Followup at two months revealed normal valve sounds and no permanent neurological deficits.

Discussion

The Bjork-Shiley prosthesis has proven to be reliable in the mitral position. However, like all artificial heart valves, it is not immune to mechanical dysfunction. Recognized complications include thrombosis with pannus formation, dehiscence with periprosthetic leaks, disc dislodgement, disc fracture, late disc entrapment against the ventricular wall and disc entrapment by suture.[1-8]

The diagnosis of prosthetic mitral valve dysfunction may be difficult depending upon the causes. Thrombosis with partial obstruction of disc movement may present in a much more subtle fashion than disc embolization or entrapment. Whenever a patient's status deteriorates rapidly, be it early or late postoperatively, prosthetic dysfunction should be considered a possibility.[7] Echocardiography may be an effective noninvasive method for evaluation.[9, 10]

Fluoroscopy may also be helpful although, in the case of the second patient, valuable time would have been lost in transit to and from the radiology suite. A very helpful clinical finding is one of relative or absolute electromechanical dissociation. Our first patient had sinus rhythm with marked change in stroke volume occurring intermittently in the immediate post bypass period. It was apparent that partial opening of the occluder resulted in an increase in left atrial pressure until a sufficient level was reached to open the valve completely. Then with reduction of left atrial pressure, the cycle was repeated. The second patient had sinus rhythm and intermittent total electromechanical dissociation. Auscultation was also revealing in the second case, as intermittent prosthetic sounds were present.

Management consists of urgent operation with repositioning of the disc position by rotating the disc with the valve holder. At no time should the valve be turned with a clamp, since damage to the struts may occur. This, in turn, could result in mechanical dysfunction either in the form of disc dislodgement or improper seating of the disc with resultant insufficiency.[6, 11]

It is of interest that both patients had rather small left ventricles, the first patient having se-

The authors recently encountered two cases of early prosthetic valve dysfunction. One was diagnosed in the operating room and the other postoperatively in the intensive care unit. Both were successfully managed by reoperation. Dr. Crouch is from the Section of Cardiovascular Surgery, Boone County Hospital in Columbia. Dr. Beauchamp is from the Section of Cardiology and Dr. Reed is from the Section of Cardiovascular and Thoracic Surgery, St. Luke's Hospital in Kansas City.

vere mitral stenosis and the second having recent mitral regurgitation secondary to papillary muscle dysfunction and a large secundum type atrial septal defect. With a relatively small ventricle, one must be careful not to select too large a prosthesis.[12] In the second patient, a satisfactory result was obtained when a smaller valve was inserted. Furthermore, if the ventricle decreases in size postoperatively, disc entrapment may occur as a late complication.[7]

It would be our recommendation that one not choose a valve disproportionately large for the ventricle and also insure free movement of the disc before closing the left atrium. It may, in some cases, be necessary to sacrifice the preferred posterior orientation of the large orifice of the valve in order to insure free movement of the disc.

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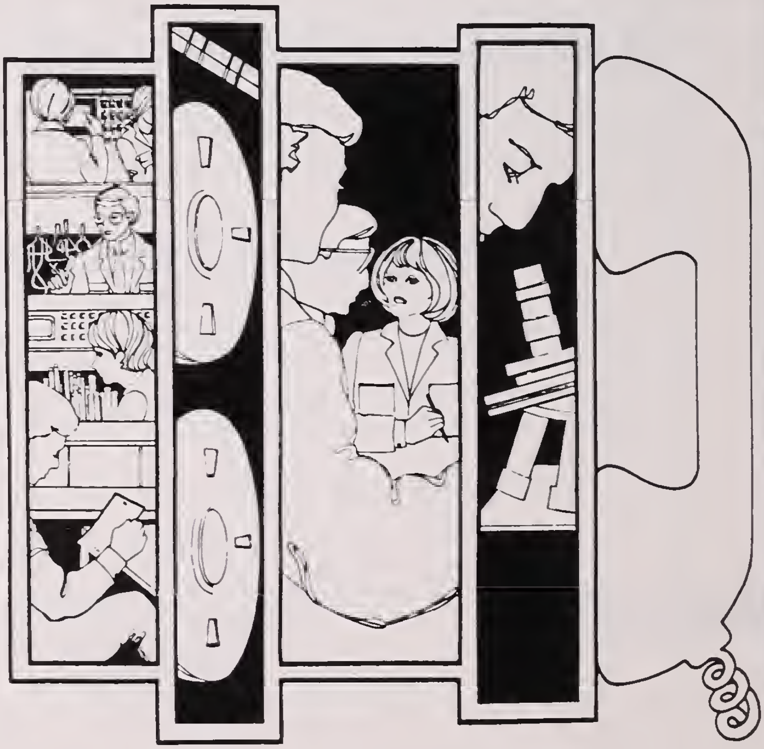

President's Message

Will-Power vs Won't-Power

Personal responsibility, personal dignity and personal moderation can only come from within. We are slow to criticize our own shortcomings, but we do not hesitate to criticize others if we think that they may be to blame for causing an unpleasant change in our life style.

Many of us blame our government for passing the now bankrupt Social Security Act. But was it not the individual and collective voters of 1932 who elected that majority of congress and our president who effected said social security regulation?

It was no secret in 1932 as it is no secret now, or in history, that governments who expand control through charity, better known as welfare, are destined to fiscal failure. Neither the church, the military, the totalitarian nor the elective forms of government have been able to stem the insatiable appetite for welfare once the spigot through which that welfare flows is held open by the manipulations of its recipients.

Richard V. Bradley, M.D.

Dr. Albert Schweitzer, known for his compassion, his charity and his expertise in the fine arts and in medicine, did not dispense free care. He well knew that his treatments to his charges were both incomplete and unappreciated if he did not exact payment in kind or in gratitude and nominal forfeit. Dr. Schweitzer knew that the recipient of a service must feel the responsibility of being indebted for and making some form of compensation to the grantor, in order to make that service a complete and fulfilled entity. He also knew that a service extracted out of bondage, or under duress, receives its only hope for quality in the dedication and discipline of the servant.

In our present American situation, perhaps the individual would be better off if we, as voters and citizens, would realize that we elected a majority government which fell into the trap of presuming to take from the public shoulders responsibilities of which they knew little. Further, the government cannot deal directly or responsibly with the attendant runaway costs when it is dealing with the up-front hostilities of that same group or groups that it presumed to help in the beginning.

The concept of taking care of the sick and the poor has no enemies. The concept of a means test to prevent fraud within such programs is the single most disliked necessity of such program and, thus, appears nowhere in these documents. Even the development of check programs such as PSRO, OSHA, EPA, HSA, FTC and FDA provide much more cost and regulations than help and economy.

The individual knows that he is better off if he can voluntarily take care of his own service problems. Medicine has initiated a unique coalition of voluntary effort to be cost effective. The hospitals have done their work well in Missouri. The physicians are doing their work well but could do better. The families of patients, and the patients themselves, need to accept more responsibility for effective use, including restraint, of their medical and health care accessibility.

We, as a country, have witnessed our welfare-oriented government sprint down a road which nears fiscal economic failure. We can reverse this by self-control. During the last three years, gasoline consumption has decreased by some 2,000,000 barrels per day (from 19 million to 17 million).

In practice, we can stop asking for more of everything. We can do for ourselves. We can support conservation and be rewarded in individual personal pride.

As Shakespeare said in his Elizabethan style, "To thine own self be true, thou cans't not be false to any man" (or lady).

Preliminary Program — 56th Annual Convention

MSMA AUXILIARY

Chase-Park Plaza Hotel, St. Louis April 9-11, 1981

Thursday, April 9

10:00 AM-4:00 PM Registration and Information. Starlight Roof.
10:00 AM Auxiliary Report to the MSMA House of Delegates.
Mrs. Donald Fakhoury, President
12:00 Noon Finance Committee Meeting. President's Suite.
1:00-6:00 PM Auction items to be taken to Chase Club.
3:00 PM Pre-Convention Board Meeting. Starlight Roof.
* 6:30 PM **Third Annual MSMF/AMA-ERF Benefit Auction. Chase Club.**
Featuring Sportscaster Jay Randolph and Gregg Croll, Second-Year Medical Student and Auctioneer.

Friday, April 10

7:15-11:30 AM MSMA Complimentary Coffee and Rolls.
8:00 AM-Noon Registration and Information. Starlight Roof.
8:00 AM General Assembly-Business Meeting. Starlight Roof.
Keynote Address: Mrs. Harry S. Dvorsky, San Leandro, Calif., President-Elect of the AMA Auxiliary.
12:00 Noon Bus to Awards Luncheon at the Junior League.
5:00 PM-6:00 PM Reception honoring Mrs. Jerry Meyer, MSMA Auxiliary President-Elect. Hunt Room.
6:30 PM Bus to The Goldenrod on The Mississippi for dinner and show.

Saturday, April 11

7:30 AM Public Affairs Breakfast.
Speaker: The Honorable Wendell Bailey, U.S. Representative from Missouri, 8th District
8:00 AM-Noon Registration and Information. Starlight Roof.
9:00 AM General Assembly — Workshop. Starlight Roof.
Greetings from Southern Medical Association, Mrs. Charles Prater, Jellico, Tenn., President.
12:00 Noon Installation Luncheon. Zodiac Room.
2:00 PM Post-Convention Board Meeting. Starlight Roof.
6:30 PM Social Hour. Chase Club.
7:15 PM MSMA Annual Banquet. Chase Club.

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The 56th Annual Convention of the Missouri State Medical Association Auxiliary will be held on April 9-11 at the Chase-Park Plaza Hotel in St. Louis. A varied and interesting program has been planned for auxiliary members and guests by the convention chairmen, Mrs. Frank Valach and Mrs. Stanley Ciapciak of St. Louis. Some of these activities will be of interest to the physicians as well.

The third annual MSMF/AMA-ERF Benefit Auction will be held at 6:30 PM on Thursday, April 9 in the Chase Club. This is always an entertaining event and also beneficial to the future of medicine.

The incoming Auxiliary president, Mrs. Jerry Meyer of Concordia, will be honored by the Lafayette-Ray County Auxiliary at a reception from 5-6:30 PM in the Hunt Room on Friday, April 10 and you are invited to attend. She will be installed at the Installation Luncheon Saturday noon.

The Auxiliary's Public Affairs Breakfast will be held on Saturday, April 11 in the Chase Club at 7:30 AM. The speaker will be the Honorable Wendell Bailey, U.S. Representative from Missouri, Eighth District. This is a good time for information from AMPAC and MMPAC on current legislative topics.

Please join us at as many of these activities as your schedule at the Annual Session will allow.

Mrs. Donald A. Fakhoury
President

EDITORIAL

AMA JAIL PROGRAM APPEALS TO LOCAL-M.D. SENSE OF DUTY

A roadblock has appeared in the AMA's hard-driving program to upgrade health care in the nation's jails — that widely acclaimed program in which many state medical associations have cooperated.

The roadblock is the imminent cutoff in funds from the Law Enforcement Assistance Administration (LEAA). The very future of this federal agency hangs in doubt.

It is up to local communities, including their medical societies, to come forth with initiatives that can help keep the jail program rolling — and, thus, keep often innocent inmates from being neglected.

To understand what local communities ought to do, it is essential to know what LEAA has been doing with the $3.7 million allocated since the program's 1975 inception.

In addition to enabling the program to start, LEAA has financed the full-time, on-site technical assistance that jails have used in meeting AMA health-care accreditation standards. This assistance is given by trained correctional health-care specialists and is backed by LEAA-funded training packages, films and the like.

The main effect of the funds cutoff will be a shrinkage in the personal, technical aid.

The AMA will continue its accreditation program (with the help of the 23 participating state medical associations); its efforts to expand the accreditation drive to the rest of the states; its dissemination of training materials; and its advisory and coordinative role.

But to bridge the technical-assistance gap, local communities will have to draw heavily on their own expertise and ingenuity. The challenge is civic and medical — but not financial. Various jails taking part in the AMA program have demonstrated that it can yield cost savings and certainly a greater cost effectiveness.

For one thing, a decent system of care relieves the possibly expensive threat of being sued by inmates. That threat has been growing, because recent U.S. Supreme Court decisions have made it easier to sue.

Second, a well-integrated system of care, with standard inhouse services and prudent arrangements with outside providers, can save costs as well as health. Medical societies can help achieve this kind of system — and have done so.

The potential economies have been — and should be — a persuasive argument for jail-care reform in communities that have been resistive, or indifferent, to it.

The key argument, though, is the response that the program has already brought from so many communities, their leaders and their health-care providers.

Almost 400 jails have taken part in the program, and 272 are doing so now. Seventy-seven jails are accredited and many more are up for accreditation or re-accreditation.

Such statistics tell us that jails need not remain "the worst blight in American corrections — much worse than prisons," as a University of Illinois criminologist recently asserted.

As medical people and medical societies, let us work to eradicate the jail-health blight wherever it is — in the spirit of the "compassion and respect for human dignity" exhorted in the AMA Principles of Medical Ethics.

For MSMA Impaired Physician Program Assistance,

Call 314-636-5744

24-Hour Telephone Answering Service. Calls Are Confidential.

Preliminary Program

MISSOURI STATE MEDICAL ASSOCIATION

123rd Annual Session

Chase-Park Plaza Hotel, St. Louis April 9-12, 1981

THURSDAY, APRIL 9

8:00 AM Registration of Delegates. Regency Room.

8:00 AM MSMA Committee on the Impaired Physician Breakfast. Georgian Room.

10:30 AM **House of Delegates, Opening Session.** Khorassan Room.

12:00 NOON Jackson County Medical Society Luncheon. Empire Room.

12:00 NOON St. Louis Metropolitan Medical Society Luncheon. Tiara Lounge North and South.

1:00 PM Reference Committee Meetings.
Coach Room
Colonial Room
Palladian Room
Park Room
Stockholm Room

6:30 PM Missouri State Surgical Society Board of Directors. Cocktails and Dinner. Lido Room.

6:30 PM American Medical Women's Association. Cocktails and Dinner. Mr. Sam's.

6:30 PM MSMA Auxiliary Auction. Chase Club.

FRIDAY, APRIL 10

7:00 AM MSMA Councilor District Breakfasts.
District No. 5, Park Room.
District No. 6, Palladian Room.
District. No. 8, Georgian Room.
District No. 9, Lacquer Room.
District No. 10, Embassy Room.

7:15-
11:00 AM Complimentary Coffee and Rolls. Regency Room.

7:30 AM Commission on Interspecialty Medicine Breakfast. Lido Room.

8:00 AM Registration. Regency Room.

8:30 AM Missouri University Board of Directors. Breakfast and Meeting. Chippendale Room.

9:00-
10:30 AM **General Session.** Khorassan Room.
"How Much Will Medical Practice Change in the 1980s?"
Speaker: Eli Ginzberg, Ph.D., Economist, Columbia University, New York, N.Y.

10:30-
11:00 AM Intermission to view exhibits.

11:00 AM-
12:00 NOON *"Infectious Diseases of the Oral Cavity."* Coach Room. Speaker: Roy S. Rogers, III, M.D., Consultant in Dermatology, Mayo Clinic, Associate Professor of Dermatology, Mayo Medical School, Rochester, Minn.
Moderator: Larry Millikan, M.D., Columbia
Sponsored by the Missouri Dermatological Society.

11:00 AM-
12:30 PM *Scientific Session*. Sponsored by the Missouri State Surgical Society. Lido Room.
"Extracranial and Intracranial Revascularization." Speaker: Robert L. Grubb, Jr., M.D., St. Louis.
"Digital Reimplantation and Free Flaps." Speaker: Robert C. Wray, Jr., M.D., St. Louis
"Reanastomosis of the Vas Deferens." Speaker: Sherman J. Silber, M.D., St. Louis.
Moderator: George Tucker, M.D., St. Louis

11:00 AM-
12:30 PM *"Tuberculosis: United States and Missouri."* Palladian Room.
Speaker: Laurence S. Farer, M.D., Director of Tuberculosis Control Division, Communicable Disease Center, Atlanta, Ga.
Annual Charles A. Brasher, M.D. Lectureship.
Moderator: James R. Wiant, M.D., St. Louis.
Sponsored by the Missouri Thoracic Society.

11:00 AM-
12:30 PM *"Arthroscopy."* Colonial Room.
Diagnostic
Surgical Technique
Speakers: Lawrence G. Evans, M.D., St. Louis. Robert Burdge, M.D., St. Louis.
Sponsored by the Missouri Orthopaedic Association.

11:00 AM-
12:30 PM *Scientific Session.* Sponsored by the Missouri Society of Internal Medicine. Stockholm Room.
11:00 *"Practical Management of Acute Myocardial Infarction."* Speaker: Allan S. Jaffe, M.D., Assistant Professor of Medicine, Washington University School of Medicine, St. Louis.
11:45 *"Newer Concepts in CPR."*
Speaker: Allen S. Jaffe, M.D.
Moderator: Peter G. Tuteur, M.D.

12:00 NOON Jackson County Medical Society Luncheon. Mr. Sam's.

12:30-
2:00 PM Missouri University Medical Alumni Luncheon. Tiara Room.

12:30 PM Missouri Thoracic Society Luncheon. Lucas Place.

1:00-
4:00 PM MSMA Committee on the Impaired Physician Confronters Meeting. Venetian Room.

1:00-
5:00 PM *"Short Audiovisual Films on Movement Disorders."* Discussion after each film. Georgian Room.
Speaker: David Schraberg, M.D., Department of Neurology and Psychiatry, Tulane University School of Medicine, New Orleans, La.
Moderator: Jo-Ellyn M. Ryall, M.D., St. Louis.
Sponsored by the Missouri Psychiatric Association and Sandoz Drug Company.

1:00-
4:00 PM Missouri Chapter, American College of Emergency Physicians. Business meeting, general discussion and election of officers. Tiara Lounge North.

2:00 PM St. Louis Metropolitan Medical Society Caucus. Starlight Roof.

2:00-
3:30 PM *"The Importance of Participating in Organized Medicine: How It Happened in Little Rock, Ark."* Tiara Lounge South.
Speaker: Albert S. Koenig, M.D., Ft. Smith, Ark.
Moderator: James M. Flynn, M.D., Kansas City
Sponsored by the Missouri Society of Pathologists.

2:00-
3:30 PM *Scientific Session.* Sponsored by the Missouri Society of Internal Medicine. Stockholm Room.
2:00 *"Outpatient Management of Chronic Obstructive Pulmonary Disease."*
Speaker: Peter G. Tuteur, M.D., Associate Professor of Medicine, Washington University School of Medicine, St. Louis.
2:45 *"Asbestos Induced Disease."*
Speaker: Peter G. Tuteur, M.D.
Moderator: Peter G. Tuteur, M.D.

2:00-
3:00 PM *"Antibiotics and Surgery — When, What and How Much."* Lido Room.
Speaker: Nelson Brewer, M.D., Cape Girardeau
"Complications of Antibiotics Therapy."
Speaker: Joseph H. Brewer, M.D., Kansas City
Moderator: Melvin C. Kasten, M.D., Cape Girardeau
Business meeting to follow Scientific Session.
Sponsored by the Missouri State Surgical Society.

2:00-
3:30 PM *"Cancer Screening and Early Detection."* Lacquer Room.
Speaker: Ned D. Rodes, M.D., Director, Cancer Research Center, Columbia.
Moderator: Walter Ballinger, M.D., St. Louis
Sponsored by the American Cancer Society, Missouri Division, Inc.

2:00-
4:00 PM *Scientific Session.* Sponsored by the Missouri Dermatological Society. Empire Room.
2:00 *"Systemic Corticosteroid Therapy."*
Speaker: Roy S. Rogers, III, M.D., Consultant in Dermatology, Mayo Clinic, Associate Professor of Dermatology, Mayo Medical School Rochester, Minn.
2:30 *"Immune Complex Diseases."*
Speaker: Russell P. Hall, M.D., Research Associate, National Institute of Health, Bethesda, Md.
Moderator: F. Anthony Thomas, M.D., Kansas City

3:15 *"How I Treat Common Dermatosis."* Clinical Panel.
Panelist: Thelda Kesterbaum, M.D., Kansas City
Jerry B. Foote, M.D., Columbia
James C. Sisk, M.D., Clayton
Douglas A. Huewe, M.D., Springfield
Moderator: Gary A. Dyer, M.D., St. Joseph

3:00 PM *Discuss the Issues* with your AMA Delegates. Swedish Room.

3:00-4:00 PM Missouri State Medical Foundation Annual Meeting. Khorassan Room.

3:30 PM Intermission to view exhibits.

4:00 PM Missouri Dermatological Society Board Meeting. Empire Room.

4:00 PM **HOUSE OF DELEGATES, SECOND SESSION.** Khorassan Room.

5:00-6:30 PM Reception Honoring Incoming MSMA Auxiliary President. Hunt Room.

6:00 PM Reference Committee Meetings.

6:30 PM Missouri Psychiatric Association. Business Meeting, Cocktails and Dinner. Empire Room.
"The Relationship of Government to the Practice of Psychiatry."
Speaker: Robert Campbell, Jr., M.D., Vice-President, American Psychiatric Association, Medical Director of Gracie Square Hospital, New York, N.Y.

6:30 PM Missouri State Surgical Society. Cocktails and Dinner. Lido Room.

6:30 PM Missouri Society of Pathologists. Cocktails and Dinner. Georgian Room.

7:00 PM Missouri Dermatological Society. Cocktails and Dinner. University Club, 1034 S. Brentwood.

7:30 PM Missouri Ophthalmological Society, Inc. Board of Directors Dinner. Palladian Room.

SATURDAY, APRIL 11

7:00 AM Councilor District No. 10 Breakfast. Embassy Room.

7:30 AM MSMA Auxiliary Public Affairs Breakfast. Chase Club.
The Honorable Wendell Bailey, Willow Springs, U. S. Representative, Missouri 8th Congressional District

7:30 AM Missouri Ear, Nose and Throat Association Breakfast and Business Meeting. Chippendale Room.

7:30 AM Missouri Society of Anesthesiologists Continental Breakfast. Stockholm Room.

7:30 AM Missouri Ophthalmological Society, Inc. Board of Directors Breakfast. English Room.

8:00 AM Registration. Regency Room.

8:00-11:00 AM Complimentary Coffee and Rolls. Regency Room.

8:30-12:00 NOON *"Endorphins, Opiate Receptors, Epidural Morphine."* Stockholm Room.
Speaker: Harold Carron, M.D., University of Virginia, Charlottesville, Va.
9:15 *"Newer Aspects of CPR."*
Speaker: Arnold Sladen, M.D., University of Pittsburgh, Pittsburgh, Pa.
10:00 Coffee Break.
10:30 *"Anesthesia for the Patient with Ischemic Heart Disease Under Non-Cardiac Surgery."*
Speaker: John Tinker, M.D., Mayo Clinic, Rochester, Minn.
11:15 Panel Discussion.
Moderator: Larry Cobb, M.D., St. Louis
Sponsored by the Missouri Society of Anesthesiologists.

9:00 AM Missouri Dermatological Society Clinical Session at Wohl Clinic. 5th Floor.

9:00-10:30 AM *"Understanding Radial Keratotomy, Part I and Part II."* Tiara Lounge North.
Speaker: Ronald A. Schachar, M.D., Dennison, Tex.
Moderator: Edward Plowman, M.D., Hannibal
Scientific Session sponsored by the Missouri Ophthalmological Society, Inc.

9:00-10:30 AM *Scientific Session.* Sponsored by the Missouri Ear, Nose and Throat Association, Inc. Empire Room.
Speaker: Eugene N. Myers, M.D., F.A.C.S., Professor and Chairman, Department of Otolaryngology, University of Pittsburgh School of Medicine, Eye and Ear Hospital, Pittsburgh, Pa.
1. *"Cervical Lymphadenopathy: Prognosis in Head and Neck Cancer."*
2. *"Treatment and Current Concepts of Inverting Papilloma."*

Moderator: William H. Friedman, M.D., St. Louis.

9:00-10:30 AM *Scientific Session.* Sponsored by the American Heart Association, Missouri Affiliate, Inc. Lucas Place.
1. *Cardiac Rehabilitation for the Patient."*
2. *"Physical Fitness for the Physician."*

Speaker: George Gura, M.D., Mid-America Heart Institute, Kansas City.
Moderator: Ben D. McCallister, M.D., Kansas City

9:00-
12:00 NOON *Scientific Session*. Sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics. Lido Room.
9:00 AM *"Natural Killer Cells and Their Possible Role in Defense Against Cancer,"* Ronald B. Herberman, M.D. Bethesda, Md.
9:40 AM *"Observations of a Venom Referral Center."* Jeannie O. Perez, M.D., St. Louis
10:00 AM Coffee Break.
10:20 AM *"Circulating Immune Complexes and Their Clinical Significance."* Russell Hall, M.D., Bethesda, Md.
11:00 AM *"Aminophylline Pharmacokinetics in Renal Dialysis."* Joseph R. Anderson, M.D., St. Louis.
11:20 AM Panel Discussion with above speakers.
Moderator: George C. Olive, M.D., Neosho.

9:00-
10:30 AM *"Low Birthweight Infant – Obstetrician and Neonatologist."* Tiara Room.
Speakers: William J. Keenan, M.D., Perianatologist, Cardinal Glennon Hospital, St. Louis.
William Ott, M.D., St. Louis University School of Medicine and St. Mary's Hospital, St. Louis.

10:30-
11:00 AM Coffee Break.

11:00-
11:30 AM *"Management of Pre-term Labor."*
Speaker: Michael Gast, M.D., Washington University School of Medicine, St. Louis.

11:30 AM
12:00 NOON *"Gynecologic Malignancy."*
Speaker: Tom Morgan, M.D., Washington University School of Medicine, St. Louis.
12:00 NOON-
12:30 PM *"The Evaluation of Infertility."*
Speaker: David Keller, M.D., Washington University School of Medicine, St. Louis.
Moderator: George J. Fuchs, M.D., Columbia.
Scientific Session. Sponsored by the Missouri OB-GYN Society.

9:30 AM-
12:00 NOON *"Physical Management of Edema."* Georgian Room.
Speaker: Keith Stillwell, Ph.D., M.D., Professor of Rehabilitation Medicine, Mayo Clinic, Rochester, Minn.
Moderator: Otakar Machek, M.D., St. Louis
10:30 Brief Clinical Presentations.
Scientific Session. Sponsored by Physical Medicine and Rehabilitation.

10:00-
11:30 AM Missouri Radiological Society Board of Directors meeting. Venetian Room.
10:30 AM Intermission to view exhibits.
10:30 AM-
5:00 PM Missouri Ophthalmological Society, Inc. All Day Meeting. Tiara Lounge North.
11:00 AM-
12:30 PM *"Diabetic Control: How and Why."* Empire Room.
Speaker: John S. Daniels, M.D., St. Louis.
Moderator: William C. Allen, M.D., Columbia.
Scientific Session. Sponsored by the Missouri Academy of Family Physicians.
11:30 AM Missouri Radiological Society Board of Directors Luncheon. Venetian Room.
12:00 NOON Missouri State Neurological Society Luncheon. Board Meeting. English Room.
12:00 NOON Physical Medicine and Rehabilitation Luncheon, Business and Board Meeting. Lucas Place.
12:00 NOON-
2:00 PM Missouri Society of Anesthesiologists. Luncheon and Business Meeting. Coach Room.
12:00 NOON Missouri Ophthalmological Society, Inc. Luncheon. Tiara Lounge South.
12:00 NOON Missouri State Allergy Association Luncheon. Embassy Room.
12:30 PM Student Councilor Luncheon. Lacquer Room.
12:30 PM Fifty-Year Club Luncheon. Palladian Room.
12:30 PM Missouri OB-GYN Society Luncheon. Tiara Room.
1:00-
4:15 PM *"Selected Aspects of Chest Radiology."* Sponsored by the Missouri Radiological Society. Colonial Room.

1:00 *"Diagnosis of Pulmonary Embolism by Ventilation Profusion Cyntography."* Speaker: Dan R. Biello, M.D., Associate Professor, Washington University, St. Louis.
1:40 Discussion
1:45 *"Selected Applications of Computed Tomography of the Chest."* Speaker: Stuart Sagel, M.D., Professor of Radiology, Washington University, St. Louis.
2:25 Discussion.
2:30 Break.
2:45 *"Current Status of Radiation Treatment of Bronchogenic Carcinoma."* Speaker: Carlos Perez, M.D., Washington University, St. Louis.
3:25 Discussion.
Moderator: MacDonald B. Logie, M.D., St. Louis.

2:00-
3:30 PM *Scientific Session*. Sponsored by the Missouri Academy of Family Physicians. Empire Room.
1. *"Advantages of Early Diagnosis of Cystic Fibrosis."* Donald B. Strominger, M.D., St. Louis

2:45 PM *"Aches, Pains and Arthritis in Children."* Bernard H. Singsen, M.D., Columbia
Moderator: William C. Allen, M.D., Columbia..

2:30-
3:00 PM Panel Discussion: *"Cost Containment in Surgical Practice."* Georgian Room.
Mr. Chuck Swisher, Missouri Hospital Association
Gene Chapman, M.D., Chairman, MSMA Public Affairs Commission.
Richard V. Bradley, M.D., President, MSMA
Moderator: Lawrence L. Evans, Kansas City.
Sponsored by the Missouri State Surgical Society.

2:00-
4:00 PM *Scientific Session* sponsored by the Missouri State Allergy Association and the Missouri Academy of Pediatrics. Lido Room.
2:00 PM *"Immunodiagnostic Tests in Cancer,"* Ronald B. Heberman, M.D., Bethesda, Md.
2:40 PM *"Evaluation of Childhood Rhinorrhea."* Charles J. Siegel, M.D., Kansas City
3:00 PM *"Clearance of Circulating Immune Complexes in the Diseased and Healthy Individual."* Russell Hall, M.D., Bethesda, Md.
3:40 PM Panel Discussion with above speakers.
Moderator: Donald Thurston, M.D., St. Louis

2:00-
4:00 PM MOMEDICO Shareholders Meeting. Park Room.

2:00-
4:15 PM *Scientific Session*. Sponsored by the Missouri Society of Anesthesiologists. Stockholm Room.
2:00 *"Epidural Analgesia in Labor — Is It Beneficial to Mother and Fetus?"* Sam Hughes, M.D., San Francisco, Calif.
2:45 *"A New Inhalation Anesthesia"* — *"Forane."* Harry Cohen, M.D., Miami, Fla.
3:30-
4:15 *Questions and Answers.*
Panelists: Sam Hughes, M.D., San Francisco California
Harry Cohen, M.D., Miami, Florida
William Ott, M.D., St. Louis .
Moderator: John F. Schweiss, M.D., St. Louis

3:30-
4:15 PM Business Meeting of Membership of Missouri Radiological Society. Colonial Room.
4:00-
4:30 PM MOMEDICO Board of Directors Meeting. Park Room.
4:00 PM Missouri State Allergy Association Business Meeting. Lido Room.
5:00-
6:30 PM Missouri University Alumni Reception. Empire Room.
5:00-
6:30 PM Washington University Alumni Reception. Stockholm Room.
5:00-
6:30 PM St. Louis University Alumni Reception. Tiara Room.
6:30 PM MSMA Social Hour preceding Annual Banquet. Chase Club.
7:15 PM MSMA Annual Banquet. Chase Club.

SUNDAY, APRIL 12

7:30 AM **HOUSE OF DELEGATES BREAKFAST MEETING.** Khorassan Room.

OFFICIAL DELEGATES

123rd Annual Session

Component Society	*Delegates*	*Alternates*
Andrew		
Audrain		
Barton		
Boone	William Allen, Columbia	Thomas Burns, Columbia
"	William D. Bradshaw, Columbia	George Eggers, Columbia
"	George Fuchs, Columbia	Ted Groshong, Columbia
"	Joseph Montie, Columbia	Winston Harrison, Columbia
"	Kenneth Rall, Columbia	Robert McDavid, Columbia
"	Hugh E. Stephenson, Columbia	Jerry Templer, Columbia
"	Robert Thomas, Columbia	Jack Colwill, Columbia
"	Thomas Anderson, Columbia	William Davis, Columbia
"	Diane Brukardt, Columbia	David Klachko, Columbia
"	James Denninghoff, Columbia	Leroy Miller, Columbia
"	Richard Heimburger, Columbia	James Weigel, Columgia
"	James Pickens, Columbia	
"	Gilbert Ross, Columbia	
"	Garth Russell, Columbia	
"		
Buchanan	Wallace McDonald, St. Joseph	Merlin D. Brown, St. Joseph
"	Ernest E. Wadlow, St. Joseph	James J. McMillen, St. Joseph
"	Berwyn H. Moen, St. Joseph	James A. Murphy, St. Joseph
"	Joe S. Gunter, St. Joseph	Krikor O. Partamian, St. Joseph
"	Robert L. Corder, St. Joseph	Joseph R. Prokop, St. Joseph
"	Gary A. Dyer, St. Joseph	Donald J. Stallard, St. Joseph
"	Robert M. Spurgat, St. Joseph	Edmund W. Kline, St. Joseph
Butler-Wayne-Ripley-Carter	Ben N. Till, Poplar Bluff	T. E. Ruff, Poplar Bluff
"	Henry E. Lestmann, Fairdealing	Kirby L. Turner, Poplar Bluff
"	W. D. Robertson, Poplar Bluff	Robert Laatsch, Poplar Bluff
"	John L. Hunt, Poplar Bluff	Don L. Andrus, Poplar Bluff
Callaway		
Cape Girardeau	Melvin C. Kasten, Cape Girardeau	John T. Crowe, Cape Girardeau
"	Jean A. Chapman, Cape Girardeau	Gordon W. Eller, Cape Girardeau
"	Carl F. Ritter, Cape Girardeau	J. Marshall Jung, Cape Girardeau
"	Charles H. Cozean, Jr., Cape Girardeau	Jerry L. Kinder, Cape Girardeau
"	John K. Holcomb, Cape Girardeau	J. W. Terry, Cape Girardeau
Chariton-Macon-Monroe-Randolph		
"		
"		
"		
Clay	Nicola Y. Katf, Kansas City	Carl R. Slaughter, Kansas City
"	John C. Hagan, III, N. Kansas City	David E. Wilson, Kansas City
"	Richard P. Bowles, Liberty	Jerry W. Cook, Kansas City
"	Donald E. Kuenzi, Kansas City	F. Anthony Thomas, Kansas City
"	William D. Soper, Liberty	Daniel A. Triplett, N. Kansas City
"	Donald Fakhoury, Kansas City	Larry E. Benson, N. Kansas City
"	Truman B. Schertz, N. Kansas City	Carroll L. Patterson, Liberty
Clinton		
Cole	James J. Weiss, Jefferson City	Harold Kanagawa, Jefferson City
"	Kenneth Siu, Jefferson City	Thomas Ryan, Jefferson City
"	Larry K. Stauffer, Jefferson City	Alan L. Braun, Jefferson City
"	Victoria Gunn, Jefferson City	David Scherr, Jefferson City
Cooper		
Dallas-Hickory-Polk-Dade	Olin Griffin, Buffalo	Neil Trachtman, Buffalo
"	Ruth Rios, Buffalo	Evelyn Griffin, Buffalo
"	Lee McNeel, Greenfield	
Dunklin		

Component Society	*Delegates*	*Alternates*
Franklin-Gasconade-Warren	William Richardson, Union	Sam L. Farrell, Washington
“	George Workman, Hermann	James Shaw, Hermann
“	Harold F. Hoelscher, Warrenton	
Grand River	Joseph A. Conrad, Chillicothe	Jin S. Yoon, Chillicothe
“	John R. Dixon, Brookfield	Sisenando P. Galvez, Marceline
“	Albert D. Cross, Trenton	David Ryan, Trenton
“	Edward E. Nixon, Gallatin	Billy D. Howell, Brookfield
“	John H. Platz, Carrollton	R. H. Staton, Carrollton
“	George Mandler, Chillicothe	John F. Rose, Chillicothe
“	Frank R. Daley, Hamilton	Thomas N. Cofer, Chillicothe
“	Merriam Gearhart, Bethany	George Gary, Marceline
Greene	Stanley S. Peterson, Springfield	R. B. Pfeiffer, Jr., Springfield
“	H. B. Ivy, Springfield	Thomas Tombridge, Springfield
“	Darrell Domann, Springfield	Michael S. Clarke, Springfield
“	Don Menchetti, Springfield	Norman Wall, Springfield
“	Floyd Barnhill, Springfield	Donald Riesenberg, Springfield
“	Ramon Shane, Springfield	Richard Kissell, Springfield
“	Arlen Winsky, Springfield	James Wolfe, Springfield
“	DeArmond Moore, Springfield	Norman Knowlton, III, Springfield
“	David Hall, Rogersville	Robert Coscia, Springfield
“	Edward Gwin, Springfield	Ronald Wachter, Springfield
“	Dan Sullivan, Springfield	Robert Bennett, Springfield
“	W. B. Johnson, II, Springfield	Charles Jobe, Springfield
“	Courtney Whitlock, Springfield	Richard Loeb, Springfield
“	Michael Gentry, Springfield	K. Dewayne Piker, Springfield
“	F. M. Corry, Springfield	Troy Major, Springfield
“	Duane Hellam, Springfield	William Clary, Springfield
Henry	Richard H. King, Clinton	Kenneth F. Scott, Clinton
Howard		

	Delegates	
Jackson	Robert C. Fairchild, Kansas City	Edward J. Twin, Kansas City
“	James P. Hopkins, Kansas City	Michael F. Hughes, Kansas City
“	George E. Volk, Kansas City	William F. Case, Kansas City
“	Lana K. Minnigerode, Kansas City	Martin L. Crow, Kansas City
“	Milton B. Ozar, Kansas City	E. M. Throne, Kansas City
“	R. K. Noback, Kansas City	David D. Zoller, Kansas City
“	Stanley N. Brand, Kansas City	William E. Dorzab, Kansas City
“	Raymond J. Caffrey, Kansas City	Abe E. Braverman, Kansas City
“	Granville E. Clark, Kansas City	Robert A. Raich, Kansas City
“	John W. Collins, Jr., Kansas City	Wallace R. Stacey, Kansas City
“	David Fortin, Kansas City	John W. Hardy, Kansas City
“	John R. Goheen, Kansas City	Donald A. Potts, Kansas City
“	Raymond W. Hartwig, Kansas City	William B. Mangum, Kansas City
“	R. Stacy Long, Kansas City	Frederick W. Hahn, Kansas City
“	Gerald L. Miller, Jr., Kansas City	Morton Jacobs, Kansas City
“	Lloyd C. Olson, Kansas City	William J. Medlicott, Kansas City
“	R. A. Slickman, Kansas City	Calvin J. Curts, Kansas City

(Note: The balance of 57 delegates from Jackson County Medical Society had not been elected at the time this issue of Missouri Medicine went to press.)

	Delegates	*Alternates*
Jasper	Robert L. Willcoxon, Joplin	Foster Whitten, Carthage
“	Edward M. Grim, Joplin	Frank I. Clark, Joplin
“	Gil M. Manalo, Carthage	Lawrence Pottenger, Joplin
“	Howard H. Roberts, Joplin	William Merideth, Joplin
“		Wendell Pence, Joplin
Jefferson		
“		
Johnson		
Laclede		
Lafayette-Ray	Charles T. Riley, Richmond	George Devault, Richmond
“	Jerry Meyer, Concordia	Robert Pavlu, Waverly

Component Society	*Delegates*	*Alternates*
Lake of the Ozarks	Charles Hall, Versailles	
“	Chris Fotopolous, Osage Beach	
“	Otis Moseley, Osage Beach	
Lewis-Clark-Scotland		
“		
Marion-Ralls-Shelby	M. J. Bukstein, Hannibal	F. N. Florendo, Jr., Hannibal
“	Charles Lichty, Shelbina	Carl Kruse, Palmyra
“	J. Russell Comer, New London	Ed Plowman, Hannibal
Mid-Missouri	Hugh Bartlett, Rolla	
“	George Slahorek, Ft. Leonard Wood	Larry Marti, Rolla
“	Seth Paskon, Salem	H. Neal Grannemann, Rolla
“	Frank Elders, Cuba	
Mineral Area	Norma Farmer, Farmington	
“	Walter C. Gray, Farmington	
“	Robert Huckstep, Farmington	
“		
“		
Moniteau		
Montgomery	S. J. Byland, Wellsville	
North Central	Francis Tarvydas, Edina	
“	Milton T. English, Kirksville	
Northwest	Patrick Harr, Maryville	Robert E. Dunshee, Maryville
“	Edward Bare, Tarkio	John N. Wanamaker, Rock Port
“	Frank Matteson, Grant City	E. D. Imes, Maryville
“	Albert Carlin, Stanberry	Isabelo Castillo, Maryville
“	James D. Humphrey, Mound City	Kanti Havaldar, Maryville
Ozarks	Mary Merideth, Cassville	Victor Occeno, Monett
“	Stanley D. Roper, Ozark	F. R. Esparrago, Monett
“	Michael Hagen, Aurora	Kenneth Glover, Mt. Vernon
“	Paul Anderson, Neosho	Richard Betz, Neosho
Pemiscot	J. D. Benitone, Caruthersville	J. G. Hazel, Caruthersville
Perry-Ste. Genevieve	Job Pontillas, Perryville	Jose Gonzales, Perryville
“	John Yang, Ste. Genevieve	I H. Chen, Ste. Genevieve
Pettis	A. J. Campbell, Sedalia	Jerome Block, Sedalia
“		
Pike		
Platte		
St. Charles-Lincoln	James Felder, St. Charles	
“	Edward Damron, Ellsberry	
“	John C. Soucy, St. Charles	
“	Ferdinand Del Pizzo, St. Charles	
		Delegates
St. Louis Metropolitan	Robert R. MacDonald, Jr., St. Louis	Richard V. Bradley, St. Louis
“	Kenneth R. Smith, Jr., St. Louis	Pacelli Brion, St. Louis
“	Charles Abramson, St. Louis	Robert D. Brookes, St. Louis
“	Morris Alex, St. Louis	Seymour Brown, St. Louis
“	Ulises Alvarez, St. Louis	R. William Burmeister, St. Louis
“	John M. Anderson, St. Louis	Carlo P. Caciolo, St. Louis
“	Luis B. Anglo, St. Louis	Gerard Callaghan, St. Louis
“	Vernon H. Balster, St. Louis	Donald E. Callahan, St. Louis
“	M. Roman Banton, St. Louis	Rudolph E. Catanzaro, St. Louis
“	Robert Becker, St. Louis	Octavio Chirino, St. Louis
“	Donald T. Behrens, St. Louis	Stanley J. Ciapciak, St. Louis
“	William Berman, St. Louis	Harry O. Cole, St. Louis
“	Ralph L. Biddy, St. Louis	Nicholas J. Colosi, St. Louis
“	Arnold S. Block, St. Louis	Marshall B. Conrad, St. Louis
“	George M. Bohigian, St. Louis	Gilbert E. Corrigan, St. Louis
“	C. Read Boles, St. Louis	Juan Corvalan, St. Louis
“	Robert L. Bolton, St. Louis	Cyril Costello, St. Louis
“	Leslie F. Bond, St. Louis	Joseph A. Costrino, St. Louis
“	James E. Bowers, St. Louis	Reno R. Cova, St. Louis

Component Society	*Delegates*	
St. Louis	Donald Cowherd, St. Louis	Jerome L. L'Ecuyer, St. Louis
"	E. J. Cunningham, St. Louis	Charles Lepley, St. Louis
"	Richard J. Dames, St. Louis	Jack R. Lichtenstein, St. Louis
"	Richard Danis, St. Louis	Francis X. Lieb, St. Louis
"	Robert B. Deitchman, St. Louis	Jay L. Liss, St. Louis
"	Pablo C. deUngria, St. Louis	Alan M. Londe, St. Louis
"	Henry C. Dugas, St. Louis	Vincent J. LoPiccolo, Jr., St. Louis
"	John J. Duggan, St. Louis	Frank Luechtefeld, St. Louis
"	Virgilio Dumadag, St. Louis	George A. Luther, St. Louis
"	James E. Edwards, St. Louis	T. Cameron MacCaughelty, St. Louis
"	Harry C. Eggleston, St. Louis	William MacDonald, St. Louis
"	Klark Exarhou, St. Louis	Otakar Machek, St. Louis
"	Daniel C. Fabito, St. Louis	Jambunathan Mahadevan, St. Louis
"	Linda A. Fisher, St. Louis	Napoleon S. Maminta, St. Louis
"	Mariano Floro, St. Louis	Maria E. Manion, St. Louis
"	Sylvester A. Flotte, St. Louis	David S. Martin, St. Louis
"	Thomas T. Flynn, St. Louis	Robert A. Mayer, St. Louis
"	Daniel M. Fraser, St. Louis	William H. McAlister, St. Louis
"	R. O. Frederick, St. Louis	Allan McCowan, St. Louis
"	Paul L. Friedman, St. Louis	R. Bruce McCloskey, St. Louis
"	Joseph Gagliardo, St. Louis	C. Douglas Meadows, St. Louis
"	John A. Gantz, St. Louis	Ravinder Mehra, St. Louis
"	David L. Gearhart, St. Louis	Roger L. Mell, St. Louis
"	August W. Geise, St. Louis	Orlando Meneses, St. Louis
"	Elliot F. Gellman, St. Louis	Melvin E. Meyer, St. Louis
"	Lance Gerowin, St. Louis	Jerry N. Middleton, St. Louis
"	Aloysius Gerst, St. Louis	Emil F. Miskovsky, St. Louis
"	Jonathan A. Gold, St. Louis	Arturo C. Montes, St. Louis
"	James M. Gordon, St. Louis	Gerald W. Moritz, St. Louis
"	Clement Grebel, St. Louis	Robert J. Mueller, St. Louis
"	Joseph Grindon, St. Louis	Wilbur Mullarky, St. Louis
"	Mon Mohan Gursahani, St. Louis	Gary Muney, St. Louis
"	David A. Hardy, St. Louis	Frank Niesen, St. Louis
"	Thomas D. Hartnett, St. Louis	David L. Ohlms, St. Louis
"	George L. Hawkins, Jr., St. Louis	Joseph D. O'Keefe, St. Louis
"	John A. Headrick, St. Louis	Gary H. Omell, St. Louis
"	Marijan Herjanic, St. Louis	Lawrence W. O'Neal, St. Louis
"	Falls B. Hershey, St. Louis	Frank Ostapowicz, St. Louis
"	Albert E. Hesker, St. Louis	William J. Ott, St. Louis
"	Patrick C. Hogan, St. Louis	Leopoldo P. Pardo, St. Louis
"	Vencel W. Hollo, St. Louis	Lourdes S. Pardo, St. Louis
"	David W. Horan, St. Louis	S. D. Parwatikar, St. Louis
"	Simon Horenstein, St. Louis	Meredith J. Payne, St. Louis
"	William H. Huffaker, St. Louis	Romeo J. Perez, St. Louis
"	J. Ted Jean, St. Louis	Richard T. Quick, St. Louis
"	Joshua E. Jensen, II, St. Louis	George B. Rader, St. Louis
"	Thomas A. Johnson, St. Louis	Robert Rainey, St. Louis
"	Otey S. Jones, St. Louis	Robert Ramsey, St. Louis
"	Victor Jones, St. Louis	David M. Reisler, St. Louis
"	Mohammed A. Kabir, St. Louis	Rosendo A. Reyes, St. Louis
"	Jack Kayes, St. Louis	Frank O. Richards, St. Louis
"	John J. Kelly, St. Louis	Michael Richmond, St. Louis
"	John D. Kenney, St. Louis	Salvatore N. Riggio, St. Louis
"	Joseph L. Kennington, St. Louis	Edward M. Ring, St. Louis
"	Abdul R. Khan, St. Louis	Hubert A. Ritter, St. Louis
"	John V. King, Sr., St. Louis	John P. Roberts, St. Louis
"	William A. Knight, Jr., St. Louis	George E. Roulhac, St. Louis
"	Edward H. Kowert, St. Louis	Michael Rumelt, St. Louis
"	Norton S. Kronemer, St. Louis	Jo-Ellyn M. Ryall, St. Louis
"	Robert E. Kuhlman, St. Louis	Shabbir Safdar, St. Louis
"	John M. Laird, St. Louis	Mickey L. Salmon, St. Louis
"	Felix E. F. Larocca, St. Louis	Antonio B. Santillano, St. Louis
"	Paul U. Larson, St. Louis	Charles R. Schranek, St. Louis
"	Joseph J. Lauber, St. Louis	Melvin Schwartz, St. Louis
"	George H. Lawrence, St. Louis	John S. Sciortino, St. Louis
"	Leo J. LeBlanc, St. Louis	Donald G. Sessions, St. Louis

Component Society	*Delegates*	
St. Louis	Bharat K. Shah, St. Louis	Michael W. Vannier, St. Louis
“	Edward J. Shaw, St. Louis	Ernest T. Velasco, St. Louis
“	A. J. Signorelli, St. Louis	Benito Veluz, St. Louis
“	Sherman Silber, St. Louis	Nicholas S. Vitale, St. Louis
“	David L. Simon, St. Louis	Pio M. Vilar, St. Louis
“	G. C. Singhal, St. Louis	Harvey Walker, Jr., St. Louis
“	James C. Sisk, St. Louis	Bruce J. Walz, St. Louis
“	Richard G. Sisson, St. Louis	Miles C. Whitener, St. Louis
“	Bruce Stoliar, St. Louis	James M. Whittico, St. Louis
“	William Stoneman, III, St. Louis	David L. Wilkinson, St. Louis
“	William P. Svancarek, St. Louis	Carol F. Williams, St. Louis
“	George Thoma, St. Louis	Vallee L. Willman, St. Louis
“	Donald L. Thurston, St. Louis	Tyrus D. Winter, St. Louis
“	Delores R. Tucker, St. Louis	R. Dean Wochner, St. Louis
“	Timothy T. Turner, St. Louis	Ray J. Wolff, St. Louis
“	Frank J. Valach, St. Louis	Robert M. Woolsey, St. Louis
“	Robert J. Valko, St. Louis	George Zografakis, St. Louis

Alternates

St. Louis	William C. Banton, II, St. Louis	Robert N. Miller, St. Louis
“	John W. Berry, St. Louis	Charles Nester, St. Louis
“	Richard Bower, St. Louis	F. X. Paletta, St. Louis
“	Harry Brady, St. Louis	Percival B. Salanga, St. Louis
“	Sol Cantor, St. Louis	W. Gary Sherman, St. Louis
“	David R. Challoner, St. Louis	William Shieber, St. Louis
“	Charles Dahm, Jr., St. Louis	Herman Shyken, St. Louis
“	Burl M. Dillard, St. Louis	Kevin B. Smith, St. Louis
“	Robert Dorton, St. Louis	John Sopuch, St. Louis
“	Ronald Evens, St. Louis	Samuel D. Soule, St. Louis
“	William P. Hamilton, St. Louis	Donald G. Spalding, St. Louis
“	John Hartwig, St. Louis	Robert Stanley, St. Louis
“	William Hummel, St. Louis	Louis Stickley, St. Louis
“	Raymond Jablonski, St. Louis	Jack Tippett, St. Louis
“	M. Kenton King, St. Louis	Harold Walters, St. Louis
“	MacDonald Logie, St. Louis	William B. Webber, St. Louis
“	Homer B. Matthews, St. Louis	Newton White, St. Louis

	Delegates	*Alternates*
Saline	E. L. McCorkle, Marshall	K. T. Papreck, Marshall
SEMO	Edwin J. Masters, Sikeston	Max A. Heeb, Sikeston
“	Wilbur Davis, Charleston	Gregorio Rodriguez, Charleston
“	John P. Sargent, Sikeston	William Critchlow, Sikeston
“	Fuad Kandalaft, Dexter	Ronald Hill, Dexter
South Central ...	M. L. Fowler, West Plains	W. T. Morgan, West Plains
“	C. W. Cooper, Thayer	A. T. Walker, Thayer
“	Joe Wall, Houston	Joe Spears, Cabool
“	M. C. Gentry, Ava	James Hasek, Mountain Grove
“	M. Hasan Choudhury, Mansfield ..	O. Martin Hasek, Mountain Grove
Tri-Lakes		
“		
Webster	T. M. Macdonnell, Marshfield	R. J. Bareis, Marshfield
West Central	William Haynie, Butler	Arthur Hansen, Butler
“	Alfred Eklund, Pleasant Hill	
“	Ooch Cantrell, Butler	Robert Magee, Eldorado Springs
“	Glen H. Reed, Appleton City	Candace Moore, Nevada
“	M. Ted Moore, Nevada	L. M. Magruder, Nevada

Student Delegates

University of Mo.-Columbia
Mr. Marc Downs
Mr. Tim Harwood

University of Mo.-Kansas City

Washington University
Ms. Kimberly Alexander
Mr. Lawrence Piro

St. Louis University
Delegates
Mr. Paul Busse
Mr. Bruce V. Gronkiewicz
Alternates
Mr. James K. Ritterbusch
Mr. Lester R. Sauvage, Jr.

Past Presidents — Delegates-at-Large

Robert Mueller, St. Louis
Guy N. Magness, University City
H. E. Petersen, St. Joseph
Victor B. Buhler, Kansas City
Paul R. Whitener, Chesterfield
Byron M. Stuart, Boonville
Hector W. Benoit, Jr., Kansas City
Doyle C. McCraw, Bolivar
Joseph L. Fisher, St. Joseph
Gerald L. Miller, Kansas City
Walter T. Gunn, St. Louis
E. A. Stricker, St. James
James C. Cope, Rocheport
R. Allen Chandler, Kansas City
Max S. Franklin, St. Louis
Howard J. McAlhany, Springfield
John N. Martin, St. Joseph
Andrew McCanse, Kansas City

Speaker and Vice-Speaker — Delegates-at-Large

Jay Meyer, St. Louis,
Speaker

Barbara Buchanan, Kansas City,
Vice-Speaker

Attend the Third Annual Benefit Auction

MSMA and Auxiliary members and their guests are again urged to participate in and enjoy the co-sponsored MSMF/AMA-ERF Benefit Auction to be held at 6:30 p.m. on Thursday, April 9 in the Chase Club during the 1981 Annual Session and Convention.

The purpose of this unique annual event is to provide a way for both the MSMA and Auxiliary to increase their contributions to the AMA-ERF and MSMF (MSMA student loan fund).

Jay Randolph, one of the nation's best known radio and TV sportscasters, will be there again to start things rolling in his own special, exuberant way.

Gregg Croll, a newcomer to the Benefit Auction scene but a seasoned and successful professional auctioneer, has volunteered to offer the many items for bids and help reach a new high in proceeds. He is a second-year medical student at the University of Missouri-Columbia and multi-talented.

The Benefit Auction has earned approximately $18,000 via the 1979 and 1980 auctions. The worthwhile and unusual items are donated by MSMA and Auxiliary members.

With your help and cooperation, the 1981 proceeds can be the greatest to date.

Co-chairmen for the auction are Mrs. A. J. Campbell of Sedalia and Mrs. Clyde Martin of Shawnee Mission, Kan. Other Auxiliary members will be hostesses and serve the refreshments during the evening.

COMMERCIAL EXHIBITORS LIST

For the 123rd Annual Session

Booth	*Exhibitors*
43	C. W. Alban Company, Inc. St. Louis
17	Allergy & Immuno Diagnostics, Ltd. Kansas City
32	American Professional Practice Association St. Louis
30	Army Medical Department Personnel Procurement Agency St. Louis
19	Biomedical Reference Laboratories Burlington, N.C.
36	Blue Shield — St. Louis and Kansas City St. Louis
2	Data Service Agency, Inc. Maryland Heights
40	Encyclopaedia Britannica, Inc. Chicago, Ill.
18	Forrest T. Jones & Company, Inc. Kansas City
23	Fred S. James & Company of Missouri, Inc. Kansas City
8	Glaxo, Inc. Ft. Lauderdale, Fla.
21	Hyland Center/St. Anthony's Medical Center St. Louis
44	International Clinical Laboratories, Inc. St. Louis
33	International Medical Electronics, Ltd. Kansas City
26	Investment Management and Research St. Louis
14	The Key Company St. Louis
9	R. J. LeGere and Company Scottsdale, Ariz.
41	Maxey Medical, Inc. Hazelwood
39	Medical Alert Systems, Inc., St. Louis
29	Medical Defense Associates, Ltd. Springfield
3	The Medical Protective Company Fort Wayne, Ind.
20	MetPath, Inc. Des Plaines, Ill.
25	Missouri Medical Insurance Company St. Louis
5	Organon Pharmaceuticals West Orange, N. J.
16	Procter & Gamble Miami Valley Laboratories Cincinnati, Ohio
7	Roche Laboratories Nutley, N. J.
31	William H. Rorer, Inc. Fort Washington, Pa.
4	Rowell Laboratories, Inc. Baudette, Minn.
13	R. Rowland & Company, Inc. St. Louis
11	Schering Corporation Chesterfield
10	Searle Laboratories Chicago, Ill.
27	Seiler Instrument & Manufacturing Company St. Louis
28	Shasta General Systems St. Louis
37	SmithKline Clinical Labs, Inc. Creve Coeur
38	Smith Kline & French Laboratories Philadelphia, Pa.
24	Social Security Administration Disability Programs Branch Kansas City
35	Southern Medical Association Birmingham, Ala.
15	Stuart Pharmaceuticals Wilmington, Del.
6	Syntex Laboratories, Inc. Palo Alto, Calif.
34	U. S. Air Force Creve Coeur
1	Wallace Laboratories Cranbury, N. J.
12	Southern Medical Association Pensacola, Fla.
42	Williams & Wilkins Chesterfield

In lieu of exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions:

Bristol Laboratories
Syracuse, N. Y.

Eli Lilly and Company
Indianapolis, Ind.

Mead Johnson
Nutritional Division
Evansville, Ind.

Merck Sharp & Dohme
West Point, Pa.

Parke-Davis
Morris Plains, N. J.

in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

TO FACILITATE THE PARTICIPATION of national medical specialty societies in achieving a cost-effective health care system, the AMA is sponsoring a National Medical Specialty Society Conference. The conference will aid societies in developing projects aimed at their particular constituencies. The conference will consist mainly of workshops where each society's representatives can draft its own project. The AMA will develop a uniform format for the final products and will assume responsibility for their printing. Distribution of the projects is the responsibility of the individual society. The conference is tentatively scheduled for May 11-12. For more information contact David Marcus, AMA Headquarters, (312) 751-6127.

FOUR AMA SEMINARS FOR HOSPITAL medical staff leaders are scheduled for 1981. The seminars will identify the major problems affecting medical staffs and will stress the leadership potential of those elected or appointed to positions of responsibility on the medical staff. The seminars will be held on March 27-28 in Atlanta, May 8-9 in Washington, D.C. on Sept. 18-19 in Chicago, and on Nov. 11-12 in Los Angeles. They are geared toward medical staff officers, department and committee chairmen, medical directors, directors of medical education, and physician trustees. Registration fee is $250 for AMA members, $375 for nonmembers. Additional registrants from the same hospital may attend for half the fee. For more information contact the Department of Hospitals and Health Facilities, AMA Headquarters.

IN COMMENTS SUBMITTED TO HHS, the AMA expressed concern that a proposed Medicare regulation could restrict access to outpatient dialysis and self-care dialysis training for patients with end-stage renal disease. Under the proposal, dialysis facilities would be classified as rural or urban and as hospital based or nonhospital based. The prospective reimbursement rate would be determined by calculating the median of the average costs per treatment of all facilities in each classification. "There is a real possibility that ESRD facilities will be forced to close because of the hasty implementation of this proposed regulation," the AMA said. The Association urged HHS to evaluate the reimbursement method on a limited basis, in order to isolate and treat problems that may arise before implementing the payment system nationwide.

A HANDBOOK OF PRACTICAL INFORMATION on Individual Practice Associations has been published by the AMA. *Alternative Health Care Delivery Systems: The Individual Practice Association* defines the necessary steps for developing an IPA and contains periodic checkpoints for assessing whether or not to proceed with an IPA. Appendices of sources of practical assistance and a director of the 76 IPAs currently operating nationwide are also contained in the booklet. Cost of the book is $1 each for 1-99 copies; 85¢ each for 100-499; and 84¢ each for 500 copies or more. To order write OP-203, AMA Order Department, P.O. Box 821, Monroe, Wis. 53566. For more information contact the Department of Health Care Delivery Systems, AMA Headquarters.

THERE IS NEITHER A STATUTORY BASIS nor practical justification for efforts to make health care prepayment plans operate more like HMOs, the AMA said in a statement to the Health Care Financing Administration. Under proposed regulations, HCPPs that elect to be reimbursed on a reasonable cost basis will have to meet specific qualifying conditions before being authorized by HCFA. Referring to the proposal's preamble, which states that imposing the same principles to HCPPs that apply to HMOs "should facilitate a health care prepayment plan's transition to HMO status," the AMA noted that "when Congress authorized cost reimbursement for HCPPs . . . it did not intend them to be HMOs or even future HMOs." The AMA called for withdrawal of the proposed regulations. "In the present climate of encouragment for 'competition' within the health care delivery system . . . it seems highly inappropriate for HCFA to attempt to phase out one of the alternative mechanisms for delivering care," the AMA said.

Examine Me.

During the past several years, I have heard my name mentioned in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers, magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases "overmedicated society," "overuse," "misuse," and "abuse," m name is one of the reference points. Sometimes even *the* reference poi

These current issues, involving patient compliance or dependency proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost always involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine my merits. Think back on the patients in your practice who have been helped through your clinical counseling and prudent prescriptions for m Consider your patients with heart problems, G.I. problems, and interpersonal problems who, when their anxiety was severe, have been abl to benefit from the medication choice you've made. Recall how often you've heard, as a result, "Doctor, I don't know what I would have don without your help."

You and I can feel proud of what we've done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experienc you'll come away with a confirmation of your knowledge that I *am* a saf and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/ Roche) Ⓒ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® Ⓘⓥ
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect *Adults* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b i d to q i d , alcoholism, 10 mg t i d or q i d in first 24 hours, then 5 mg t.i d or q i d as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t i d or q i d , adjunctively in convulsive disorders, 2 to 10 mg b i d to q i d *Geriatric or debilitated patients* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions) *Children* 1 to 2½ mg t i d. or q i d initially, increasing as needed and tolerated (not for use under 6 months)
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500. Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10. Prescription Paks of 50, available in trays of 10

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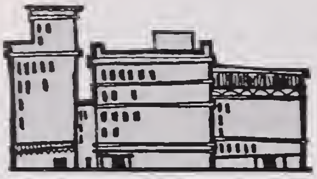

NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-COLUMBIA

University Hospital and Clinics and the School of Medicine are jointly observing a 25th anniversary this year.

On Sept. 16, 1956, patients were moved from Noyes Hospital on the University campus to the new 460-bed hospital and medical school complex. The clinical facilities made possible the expansion of the School of Medicine from a two-year to a full four-year curriculum.

The annual Employee Recognition Dinner in April will honor those who have been employed at the Health Sciences Center five, ten, 15, 20 or 25 years. Other events will be held during the year and the anniversary will culminate with an open house and tour of the facilities during M.D. Day and alumni weekend on October 23-24.

Twenty-three medical students who were in the junior class in the fall of 1956 received the first M.D. degrees awarded by the University of Missouri since 1890 when they were graduated in 1957.

Today there are 456 medical students at UMC, about 450 undergraduate and graduate students in nursing, and more than 500 students in the health-related professions. Nearly 300 resident physicians and postdoctoral fellows are training in medical specialties.

The University of Missouri system Board of Curators has approved a request from the School of Medicine to develop laboratory teaching space for its 110 first-year medical students.

Such space for gross anatomy, histology, neuro-anatomy and physiology, as well as space for student carrels, will be located in the basement of the School of Nursing building. The cost of developing the 7,300 square feet is an estimated $500,000.

Relocating the class from present laboratory space in the Medical Sciences Building to the nursing school basement will free 8,000 square feet of space in the former building.

In 1977, during construction of the nursing school building, the School of Medicine paid for excavation of the basement, anticipating need for the space.

Final design plans for building a $1.1 million opthalmology clinic at the University of Missouri-Columbia Health Sciences Center was approved in February by the UM system Board of Curators.

The clinic, a proposed one-story structure with 8,900 square feet, will be built east of the UMC Hospital's outpatient clinics. If satisfactory bids are received later and a construction contract awarded, the project should be completed in the spring of 1982.

Preliminary plans for the building were approved by the curators last June.

The clinic will be of modular design to maximize both teaching capacity and patient convenience. A staff physician and resident will be able to work in each grouping of four examination rooms. The rooms will be able to accommodate a patient and two other persons.

Financing of the clinic is being provided mainly with $976,504 the University is receiving from the sale of a farm in Iowa which was given to UMC as part of the Roy E. and Elizabeth Patee Mason Memorial Fund.

The curators earlier approved sale of the 320-acre farm in Humboldt County, Iowa for $900,000, plus $108,000 interest over a three-year period and $3,534 for fall tillage work. After deducting $31,500 in sales commission and $3,530 in estimated 1980 real estate taxes, the University will realize a net of $976,504 from the sale.

Gifts and pledges to the University of Missouri-Columbia Health Sciences Library campaign, now total $1,803,000.

Some $350,000 was raised in December, 1980 from 75 contributors through the efforts of volunteer solicitors.

The University is trying to raise $2 million from private sources before asking the Missouri Legislature for $5.9 million to build a combined Health Sciences Library and library storage facility adjacent to the Health Sciences Center.

The combined facility has the University's number one priority for new construction. Constructing a two-level storage facility under the Library would save an estimated $2.8 million in state funds.

Drs. James M. A. Weiss and *David Davis* of the Department of Psychiatry were among 54 international experts invited to take part in a symposium on the psychopathology of anxiety sponsored by the World Psychiatric Association in Cairo, Egypt, during January.

Dr. Weiss, department chairman, presented a paper on "Manifestations of Anxiety in Patients with Antisocial Personality Disorders: A Comparison of 524 Subjects with Matched Controls," co-authored by Dr. Davis, associate chairman, *Dr. James L. Hedlund* and *Dr. Dong Won Cho*. The latter two are assigned to the Missouri Institute of Psychiatry in St. Louis.

Dr. Davis served as chairman of the plenary session on "Epidemiological and Biological Aspects of Anxiety." All papers of the symposium will be published in the *Proceedings of the World Psychiatric Association* and will serve to develop national and international guidelines for the diagnosis and treatment of psychiatric disorders in which anxiety is a major component.

Following the Cairo conference, Dr. Weiss served as a visiting professor at the University of Athens and Dr. Davis as visiting professor at the University of London.

ST. LOUIS UNIVERSITY

The American Medical Association has awarded its bronze medal for television news programming to *Armand E. Brodeur*, M.D., professor of radiology and professor of pediatrics at the School of Medicine.

Dr. Brodeur

Dr. Brodeur's award was the result of a 1980 broadcast of "St. Louis Illustrated," a public affairs presentation of KMOX-TV in St. Louis, on which he debated *Robert S. Mendelsohn*, M.D., author of "Confessions of a Medical Heretic."

The AMA presents an annual gold, silver and bronze award to outstanding speakers representing the medical profession. The entry was judged by a panel of media professionals and was submitted by the St. Louis Metropolitan Medical Society who will receive a cash prize to be used for its speakers program.

In addition to his faculty position with St. Louis University School of Medicine, Dr. Brodeur is the director of radiology at Cardinal Glennon Memorial Hospital for Children.

Stuart Forman, M.D., a resident in psychiatry at the Medical Center, is one of 15 residents nationwide to be chosen as a Laughlin Fellow by the American College of Psychiatrists.

The most promising residents from medical institutions throughout the country were nominated for the honor, which is named for the founder of the American College of Psychiatrists, Dr. H. P. Laughlin.

Lindbergh S. Sata, M.D., Samuel Fordyce Professor and chairman, Department of Psychiatry, nominated Dr. Forman for the fellowship, noting Dr. Forman's "extraordinary performance in residency training and . . . his consistent commitment in the education of medical students."

Virginia H. Peden, M.D., has been appointed deputy medical director, Cardinal Glennon Memorial Hospital for Children, and deputy chairman, Department of Pediatrics and Adolescent Medicine, St. Louis University School of Medicine. Dr. Peden also holds the rank of professor of pediatrics at the School of Medicine.

Dr. Peden

Dr. Peden has authored and co-authored numerous medical papers, abstracts and publications. She is a member of many professional societies including the American Academy of Pediatrics, the American Diabetes Association-Greater St. Louis Affiliate, the Endocrine Society and the American Society for Parental and Enteral Nutrition.

Dr. Hiltrud Mueller, chief, Division of Cardiology, and *Dr. Jeffrey Ferst*, assistant professor of medicine, published an article entitled "Ischemic Heart Disease in the 1980s: Part II: Stable Angina — Role of Coronary Artery Spasm and Therapeutic Efficacy of Nifedipine," in the December, 1980 issue of *Practical Cardiology*.

Begun in October 1978, the study is a double-blind clinical trial using nifedipine in the treatment of stable angina. Eight medical centers are involved in the clinical trial, St. Louis University Medical Center having the largest population of patients participating. The doctors anticipate their study will be finished in the first half of 1981, after which they plan to begin another clinical trial using nifedipine vs nitrates to show long-term efficacy of this newly introduced calcium antagonist. Any physician in the community with stable angina patients may refer them to the Nifedipine Drug Project by calling 771-7600, ext. 3991.

UNIVERSITY OF MISSOURI-KANSAS CITY

Harriet S. Langley, M.D., a resident in internal medicine at Truman Medical Center and a graduate of the School of Medicine, will participate in the symposium, "NBC Reports . . . To Be a Doctor: Medicine, Media, and the Public," on April 6 at the Kansas City meeting of the American College of Physicians. NBC's Tom Brokaw and Tom Spain will participate in the symposium, along with physicians from Harvard Medical School and the University of Kansas Medical Center.

Peter A. Valen, M.D., instructor of medicine, will present the paper, "Fatigue and Arm Pain," when he represents the School of Medicine at the April meeting of the American College of Physicians.

Theodore Beringer, Ph.D., associate professor of anatomy, has received an award of $5,700 from the Lettie B. McIlvain Frederic Fund for research in anatomy. Dr. Beringer intends to conduct research into the mechanisms of vasospasm and its implications in stroke.

The School of Medicine has received a $5,000 grant from the U.S. Department of Energy to conduct a technical study of energy use in the Medical School building. The Department of Energy will evaluate the study report and consider funding 50% of the cost of recommended improvements in energy conservation measures.

Edward J. Twin, M.D., professor of medicine and senior docent, has been selected as president of the Missouri State Professional Standards Review Council.

The Schools of Medicine and Dentistry, in association with the Academy of Health Professions, recently completed production of a 52-minute videotape and 60-page study guide for the American Medical Association's *Video Clinics* series for continuing medical education.

"Acute Gastrointestinal Bleeding" is a joint production of the Office of Educational Resources (Medicine) and Biomedical Communications (Dentistry). *Dr. Lawrence Tretbar*, clinical professor of medicine, is the producer-moderator; *Dr. Edward J. Twin*, professor of medicine, and *Dr. Jack Stuber*, clinical professor of radiology, are faculty panelists.

The School of Nursing has announced the appointment of *Kathleen B. Goldblatt*, R.N., Ed.D. as its first dean. Dr. Goldblatt, a professor of nursing at the University of Alabama-Birmingham and chairman of the school's M.S.N. program, will assume her responsibilities next August. Karen Mitchell, a doctoral candidate at UMKC, has been Acting Dean of the School of Nursing since September 1979.

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MSMA Members Receive Physician's Recognition Award

Fifty-seven MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of January, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in Missouri Medicine as they are received from the AMA.

Victor H. Albera, St. Clair
James H. Allen, Florissant
Dallas D. Anthony, Springfield
Samuel E. Aparicio-Acosta, St. Joseph
John L. Bardsley, St. Louis
Maxwell G. Berry, Kansas City
John T. Biggs, St. Louis
Don D. Cho, Webb City
Donald Q. Cochran, Columbia
Thomas B. Coulter, Kansas City
Timothy T. Dalton, Kansas City
Thomas J. Donovan, St. Louis
Robert K. Dorton, St. Louis
Robert E. Dunshee, Maryville
Thomas F. Egan, St. Louis
Calvin E. Engelmann, Kansas City
Charles W. Ferris, St. Louis
William T. Fitzgerald, St. Louis
Bruce S. Frank, Creve Coeur
Jim D. Frogge, Joplin
Guillermo Geisse, St. Louis
Frank C. Giddings, Springfield
Henry N. Habib, Kansas City
Gregory L. Hartman, Kansas City
Karl L. Keffler, St. Louis
John Kepes, Kansas City
Richard H. Kiene, Kansas City
Stanley W. Kim, St. Louis
Kenneth R. Kopp, Kansas City
Herbert J. Krantman, St. Louis
James P. La Bach, Kansas City
Richard L. Lehner, Kansas City
Marvin E. Levin, St. Louis
Marvin J. Lopez, Columbia
Chester P. Lynxwiler, St. Louis
Laureand G. Mayuga, Cabool
John F. McDonnell, Kansas City
Paul W. Meyer, Kansas City
Benedict A. Moranville, Columbia
Frede Mortensen, St. Louis
Gary H. Myers, Chesterfield
Nath C. Okafor, Florissant
Jere O. Osborne, Kansas City
Pin Hsiu Pu, Kennett
Pepito C. Rivera, Brookfield
Van M. Robinson, North Kansas City
Gordon C. Sauer, Kansas City
Paul E. Sauer, Springfield
John W. Selph, Maryville
James C. Sisk, Clayton
Elbert E. Smith, Kansas City
Francis O. Trotter, St. Louis
Christopher G. Vournas, Bridgeton
Jasper N. Wakeman, Springfield
Kenneth E. Walter, St. Louis
James W. Wilson, Springfield
Richard W. Yore, St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

Mar. 26	Infratentorial Lesions — CT of the Post Fossa Masses (Truman Medical Center)
Mar. 26-28	Perspectives in Medicine — 1981 (Hyatt Regency Hotel)
April 24-25	The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
April 30	C.V.A. — Anatomical Correlation by CAT (Truman Medical Center)
May 8-9	Geriatrics Seminar (Alameda Plaza Hotel)
May 14-15	Surgical Problems: The Old and the New (Hyatt Regency Hotel)
May 28	CT Evaluation of Supratentorial Lesion (Truman Medical Center)
June 5-6	Symposium on Physical Fitness (Crown Center Hotel)
June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)

DePaul Community Health Center
12303 DePaul Drive, Bridgeton 63044
(314) 344-6262
***Contact:* Medical Director's Office**

Mar. 4	Neuropharmacology Program (DePaul Division Auditorium)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

April 1	CT Scanning
June 3	Lung Disease
Aug. 5	Multisystem Trauma

Freeman Hospital
1102 W. 32nd, Joplin 64801
(417) 623-2801, Ext. 310
***Contact:* Joy W. Barnett, CME Coordinator**

Mar. 24	Thrombolytic Therapy
Apr. 24-26	Advanced Cardiac Life Support

St. Louis University Medical Center
1325 S. Grand, St. Louis 63104
(314) 664-9800, Ext. 127
***Contact:* John Grellner, Director, Continuing Education**

Mar. 30-31	Coping With Pain in Children and Adolescents (Cardinal Glennon Memorial Hospital for Children)
Apr. 10	Current Concepts in Clinical Nutrition
Apr. 21	Infertility in the 1980s
May 6	Grand Rounds in Medical Ethics (Co-sponsor — St. Louis Academy of Family Physicians)
May 13-14	Pediatrics and Adolescents: Maximizing Development

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)

3:00 PM — Surgical Rounds
(Every Wednesday and Friday)

4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)

4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)

8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)

7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

Missouri-Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141
***Contact:* Richard B. Oglesby, M.D.**

May 17	Twelfth Eye Seminar — Refractive Surgery

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics Meeting
May 11	City-Wide Radiology Conference — Digital Imaging and Computers Radiology
June 13	Leroy Sante Lecture

University of Missouri School of Medicine Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Mar. 19-20	Spring Surgery Conference
Mar. 30-31	27th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 8-9	Primary Pediatrics for the Primary Physician
May 8-10	4th Annual Missouri Cardiovascular Conference (Tan-Tar-A, Osage Beach)

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
***Contact:* Norman L. Martin, M.D., President**

April 8	Bone and Joint (Dinner Meeting, Alameda Plaza) 4 PM — Lecture (Kansas University Medical Center)
May 20	Pediatric Urology (With Greater K.C. Urological Society, Granada Royale Hotel)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Mar. 16-17	Eighth Annual Symposium on Obstetrics & Gynecology
Mar. 19-20	Rheumatology for the Practicing Physician
April 5-12	Third Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Caribbean Cruise)
Nov. 13-15	Eighth Annnual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
May 8-9	Alumni Reunion
May 13	Burns: The Early Days
May 21-22	Postgraduate Course in Otolaryngology
Dec. 10-12	Current Concepts in Cancer Therapy

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The Missouri State Medical Foundation (MSMF) was created by the Missouri State Medical Association for the express purpose of giving financial assistance to deserving young Missourians who will be tomorrow's doctors.

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The Missouri State Medical Foundation is classified by the Internal Revenue Service under Section 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

FINANCIAL STATEMENT FOR THE YEAR 1980

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63144

February 5, 1981

Missouri State Medical Association
113 Madison
Jefferson City, Missouri 65101

Gentlemen,

An examination has been made of the balance sheet of Missouri State Medical Association, a non-profit Missouri corporation, as of December 31, 1980, and attached are the related statements of income and reserves and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion the aforementioned financial statements present fairly the financial position of Missouri State Medical Association at December 31, 1980, and the results of its operations and the changes in its financial position for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson and Company

Exhibit A

Missouri State Medical Association
Balance Sheet, December 31, 1980

Assets

Current Assets		
Cash in Banks and On Hand	$ 87,872	
Certificates of Deposits	440,000	
Accounts Receivable — Advertisers	6,456	
Accounts Receivable — Others	11,080	
Note Receivable — Momedico	150,000	
Total Current Assets		$ 695,408
Investments (Exhibit C-2)		
Certificate of Deposit	$234,000	
Bonds and Notes at Cost	32,500	
Corporation Stocks at Cost	69,467	
Equity Investments:		
M.S.M.I. — 100% owned	86,756	
Momedico — 16% owned	563,010	
Total Investments		985,733
Dues Receivable — Exhibit D (See Reserve-Contra)		4,796
Fixed Assets (At Cost)		
Land	$ 26,000	
Building	137,810	
Furniture and Fixtures	90,059	
Total	$253,869	
Less Reserve for Depreciation	60,950	192,919
Advance for Travel		964
		$1,879,820

Liabilities

Current Liabilities		
Accounts Payable	$ 5,011	
Note Payable Momedico-due in one year	36,177	
Note Payable — R.B.H.	150,000	
Due American Medical Association	1,966	
Due Missouri State Medical Foundation	15,469	
Due County Medical Societies	10	
Total Current Liabilities		$ 208,633
Deferred Credit to Income (Advance Dues)		227,572
Reserve for Uncollected Dues (See Receivables)		4,796
Note Payable — Boatmen's Bank		211,141
Note Payable — MOMEDICO		325,596
Subordinated Debenture Notes		501,258
Reserve for Future Activities — Balance 1/1/80	$438,050	
Gain on Sale of Securities	16,488	
Reinvestment of Permanent Investment Income	30,729	
Federal and State Income Taxes	(5,536)	
Excess of Expense Over Income — Exhibit B	(78,907)	400,824
		$1,879,820

Exhibit B

Missouri State Medical Association
Income Statement for the Year 1980

Particulars	*General Activities*	*Journal Publication*	*Total*
Dues Received (including $3.00 per member annually for the Journal)	$513,002	$ 15,044	$528,046
Rentals — Annual Session Exhibit Space	9,900		9,900
Annual Session Contributions	1,320		1,320
Subscriptions to the Journal — Nonmembers		3,019	3,019
Advertising Space — The Journal		43,812	43,812
Investments — Interest and Dividends	105,514		105,514
Collection Fees on A.M.A. Dues	7,546		7,546
Reimbursed Fees for Services	26,409		26,409
Equity Income — Subsidiaries — M.S.M.I. — 100% owned $35,130 Momedico — 16% owned (4,318)	30,812		30,812
Total Income	$694,503	$ 61,875	$756,378
Expenses			
Salaries	$206,019	$ 19,402	$225,421
The Journal — Paper, Printing, Etc.		83,046	83,046
Consultation Fee	5,000		5,000
Commission on Journal Advertising		6,523	6,523
Commission and Meeting Expenses	116,221		116,221
Contribution — M.S.M.F.	15,451		15,451
Custodian Fees — Investments	460		460
Depreciation	5,416	904	6,320
Dues and Subscriptions	1,736		1,736
Employees' Pension Plan Contributions	21,932	4,486	26,418
Equipment Purchases, Rentals and Repairs	4,501	467	4,968
Insurance — General	1,889		1,889
Insurance — Blue Cross	8,595	882	9,477
Interest Expense	210,317		210,317
MMPAC — Administrative Expenses	3,458		3,458
Membership — Date Processing	12,869		12,869
Occupancy Expense	8,884	921	9,805
Postage	12,712		12,712
Professional Fees	9,435	1,000	10,435
Public Relations Survey	3,865		3,865
Reinvestment Fixed Income	30,730		30,730
Stationery, Printing and Office Supplies	6,130		6,130
Student Awards	400		400
Taxes — Payroll	12,256	1,268	13,524
Taxes — Real Estate	609		609
Telephone and Telegraph	9,288	964	10,252
Traveling Expenses — Executive Secretary and Assistants	7,249		7,249
Total Expenses	$715,422	$119,863	$835,285
Excess of Expenses over Income	$ 20,919	$ 57,988	$ 78,907

Exhibit C-1

Missouri State Medical Association
Statement of Commissions and Meeting Expenses
for the Year 1980

Annual Session	$ 44,772
Council	23,033
Delegates to A.M.A.	27,137
Public Affairs	10,285
Women's Auxiliary	6,351

(Continued on next page)

Commissions:		
Commission on Medical Economics, Third Party Medicine, and Governmental Relations	$ 73	
Commission on Continuing Education and Health Manpower	2,976	
Committee on Interspecialty Medicine	150	
Committee on Impaired Physicians	738	
Commitee on Medical Affairs	108	
Committee on State Board of Regulations	460	
Committee on Medical Legal Affairs	56	
Committee on Voluntary Health	82	4,643
Total		$116,221

Exhibit C-2

Statement of Investments December 31, 1980

Description		
Mercantile Trust — C.D. 16% due 3/30/81		$234,000
C.I.T. Financial Corporation	$27,000	
Federal Money Market Trust	500	
Pacific Gas and Electric 4½% due 6/1/90	5,000	32,500
100 shares Alcan Aluminum LTD	$ 3,703	
100 shares Allis-Chalmers Corp.	3,490	
65 shares American Tel. & Tel.	4,125	
330 shares Baker International	2,970	
200 shares Baldor Electric Co.	4,106	
100 shares Belco Petroleum Corp.	6,716	
100 shares Burroughs Corp.	4,853	
400 shares Central and Southwest	6,346	
100 shares Combustion Engineering	5,216	
90 shares Dart and Kraft, Inc.	4,158	
100 shares Gilbert Associates, Inc.	4,151	
100 shares Interco	2,955	
145 shares International Papers Co.	5,563	
100 shares Lilly Eli and Co.	5,953	
244 shares Morgan J. P. & Co.	5,162	69,467
Total Cost (Market Value $353,228)		$335,967
Equity Investments		
M.S.M.I. Inc. 100% owned		86,756
Missouri Medical Insurance Company 16% owned		563,010
Total		$985,733

Exhibit D-1

Missouri State Medical Association

Dues Receivable and Membership by Societies
December 31, 1980

MEMBERSHIP

Societies	*Students*	*Junior*	*Active*	*Honor*	*Total*	*Unpaid Dues*
Andrew			3		3	
Audrain			23	2	25	
Barton			4	1	5	
Boone		17	265	16	298	$1,218.75
Buchanan			108	20	128	
Butler-Wayne Ripley			65	3	68	125.00
Callaway			10	5	15	125.00
Cape Girardeau			95	3	98	250.00
Chariton-Macon-Monroe-Randolph			19	6	25	125.00
Clay		1	129	2	132	250.00
Clinton			3	1	4	
Cole			65	8	73	62.50
Cooper			5	1	6	
Dallas-Hickory-Polk-Dade			7	3	10	
Dunklin			19		19	125.00
Franklin-Gasconade-Warren			33	5	38	125.00
Grand River		1	32	4	37	
Greene			290	29	319	125.00
Henry			5	4	9	
Howard			3	1	4	
Jackson		65	980	168	1,213	625.00
Jasper			82	12	94	
Jefferson			24	2	26	187.50
Johnson			10	4	14	
Laclede			8		8	
Lafayette-Ray			21	2	23	
Lake of the Ozarks			14	2	16	
Lewis-Clark-Scotland			3		3	
St. Charles-Lincoln		1	65	2	68	125.00
Marion-Ralls-Shelby			32	2	34	
Mineral Area			30	3	33	
Moniteau			2	1	3	
Montgomery			1		1	
Northwest Missouri			24	1	25	
North Central			2		2	
Ozark			36	8	44	125.00
Pemiscot			10	1	11	
Perry-Ste. Genevieve			18	3	21	
Pettis			29	3	32	156.25
Mid Missouri			32	3	35	156.25
Pike			7		7	125.00
Platte			3		3	
St. Louis City Metropolitan		189	2,006	263	2,458	125.00
Saline			11	1	12	
Semo			39	4	43	250.00
South Central		1	26	1	28	
Tri Lakes			15	2	17	125.00
Webster			2		2	
West Central			27	9	36	
St. Louis University	62				62	120.00
University of Missouri-Columbia	87				87	45.00
University of Missouri-Kansas City	39				39	25.00
Washington University	45				45	75.00
Totals	233	275	4,742	611	5,861	$4,796.25 (A)

(A) Delinquent dues of members at December 31, 1980 carried at the request of local Societies. Other delinquent members were dropped from membership in accordance with the by-laws.

Exhibit E

Missouri State Medical Association
Statement of Source and Application of Funds
for the Year 1980

Funds Acquired			
Sales of Stock in Momedico			$2,144,142
Collections of Subordinated Notes			804,942
Increase in Note Payable — Momedico			167,889
Increase in Deferred Credits to Income			48,928
Refund of Federal Income Tax			99
Reinvestment of Permanent Investment Income			30,729
Gain on Sale of Securities			16,488
Total Funds Acquired			$3,213,217
Funds Applied			
Excess of Expenses over Income for Year	$78,907		
Plus Income Taxes for 1980	5,536		
Less Depreciation (non-cash)	(13,881)		
Funds Applied to Operations		$ 70,562	
Payments on Bank Loan		1,538,807	
Redemption of Subordinated Notes		1,322,400	
Purchase of Fixed Investments		69,873	
Purchase of Fixed Assets		11,559	
Payment of Income Taxes — 1979		833	
Increase in Travel Advances		57	
Total Funds Applied			3,014,091
Balance — Increase in Working Capital			$ 199,126
Accounted for as follows:			
Increase in Notes Receivable			$150,000
Increase in Certificates of Deposit			145,000
Increase in Accounts Receivable			13,132
Increase in Cash			6,776
Less Increase in Current Liabilities			(115,782)
Balance — Increase in Working Capital			$199,126

(Continued on next page)

Missouri State Medical Association
Notes to Financial Statements
December 31, 1980

1. *Investments*. Permanent investments with a cost of $335,967 were confirmed by a statement from bank and saving and loan association. Equity investment in Missouri Medical Insurance Company was obtained from unaudited financial statements prepared by the company's employees. M.S.M.I. equity investment was obtained from audited statements.

2. *Building, Equipment and Depreciation*. The building occupied by the Association with a cost of $137,810 will be depreciated over a useful life of 30 years and the furniture and fixtures in the amount of $90,059 has a 10 year useful life. Depreciation is computed on a straight line basis.

3. *Dues and Assessments*. Membership dues and assessments received in advance are carried as deferred credit to income and will be picked up as income in the next year. Dues and assessments in effect for each member during the year 1980 are as follows:

	Active	*Junior*	*Student*
Journal	$ 3.00	$ 3.00	$3.00
Association General Fund	112.00	7.00	2.00
Foundation Assessment	10.00		
Mo. State Medical Assn. Dues and Assessments	$125.00	$10.00	$5.00
American Medical Association	250.00	35.00	
Totals	$375.00	$45.00	$5.00

4. *Notes Payable – Boatmen's Bank*. On the reorganization of Mòmedico, the Association surrendered stock of Momedico and the proceeds were used to reduce the Boatmen's Bank Loan to $262,222 at October 15, 1980. The amounts due on Subordinated Notes will pay off the bank as they are collected. The bank loan is secured by securities held by Mercantile Trust Company.

5. *Subordinated Notes*. The notes are issued without interest or maturity date and interest or repayment is at the discretion of the council of the Missouri State Medical Association, and the restrictions contained in the subordinated notes.

6. *Income Taxes*. The Internal Revenue Service requires that the Association pay taxes on its unrelated business income. For the year ended December 31, 1980, the Association had a gain of $22,126.00 on their unrelated business income, resulting in a tax of $5,536.00.

FINANCIAL STATEMENT
MISSOURI STATE MEDICAL FOUNDATION
DECEMBER 31, 1980

LENNERTSON & COMPANY
Certified Public Accountants
ST. LOUIS, MISSOURI 63144

February 5, 1981

Missouri State Medical Foundation
113 Madison
Jefferson City, MO 65101

Gentlemen,

The balance sheet of Missouri State Medical Foundation was examined as of December 31, 1980, and the related statements of support, revenue and expenses, and changes in fund balances for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other procedures as we considered necessary in the circumstances.

In our opinion, the aforementioned statements present fairly the assets and liabilities of Missouri State Medical Foundation at December 31, 1980, arising from cash transactions, and the revenues collected and expenditures made by it during the year then ended, on a basis consistent with that of the preceding year.

Yours very truly,
Lennertson and Company

Exhibit A

Missouri State Medical Foundation
Balance Sheet (Cash Basis) December 31, 1980

Assets

Current Assets		
Cash — Central Trust Bank	$ 79,469	
Savings Account	13,485	
3 Month Times Savings	1,235	
C-D, Mercantile Trust — due 6/1/81	150,000	
Accounts Receivable — M.S.M.A.	11,868	
Total Current Assets		$256,057
Loans Receivable — Medical Students	$736,591	
Less Reserve for Losses	19,227	717,364
		$973,421

Fund Reserve

Balance January 1, 1980		$881,108
Additions for the Year 1980		
Interest on Student Loans	$ 17,029	
Interest on Bank Deposits	22,623	
Contributions (detail below)	19,882	
Assessments of Members, Active $10	45,732	105,266
		$986,374
Less Expenses for the Year 1980		
Administrative Services	$ 6,600	
Professional Fees	1,000	
Printing, Meetings and Miscellaneous	996	
Provision for Losses on Student Loans	4,357	12,953
		$973,421

Contributions

Corporations	$12,175
Tribute	780
Physicians	560
Others	6,367
	$19,882

Missouri State Medical Foundation
Notes to Financial Statements
December 31, 1980

1. *Income*. Accrued interest on outstanding loans at December 31, 1980 amounted to $48,561.92 and is not included in the loan balance in Exhibit A.

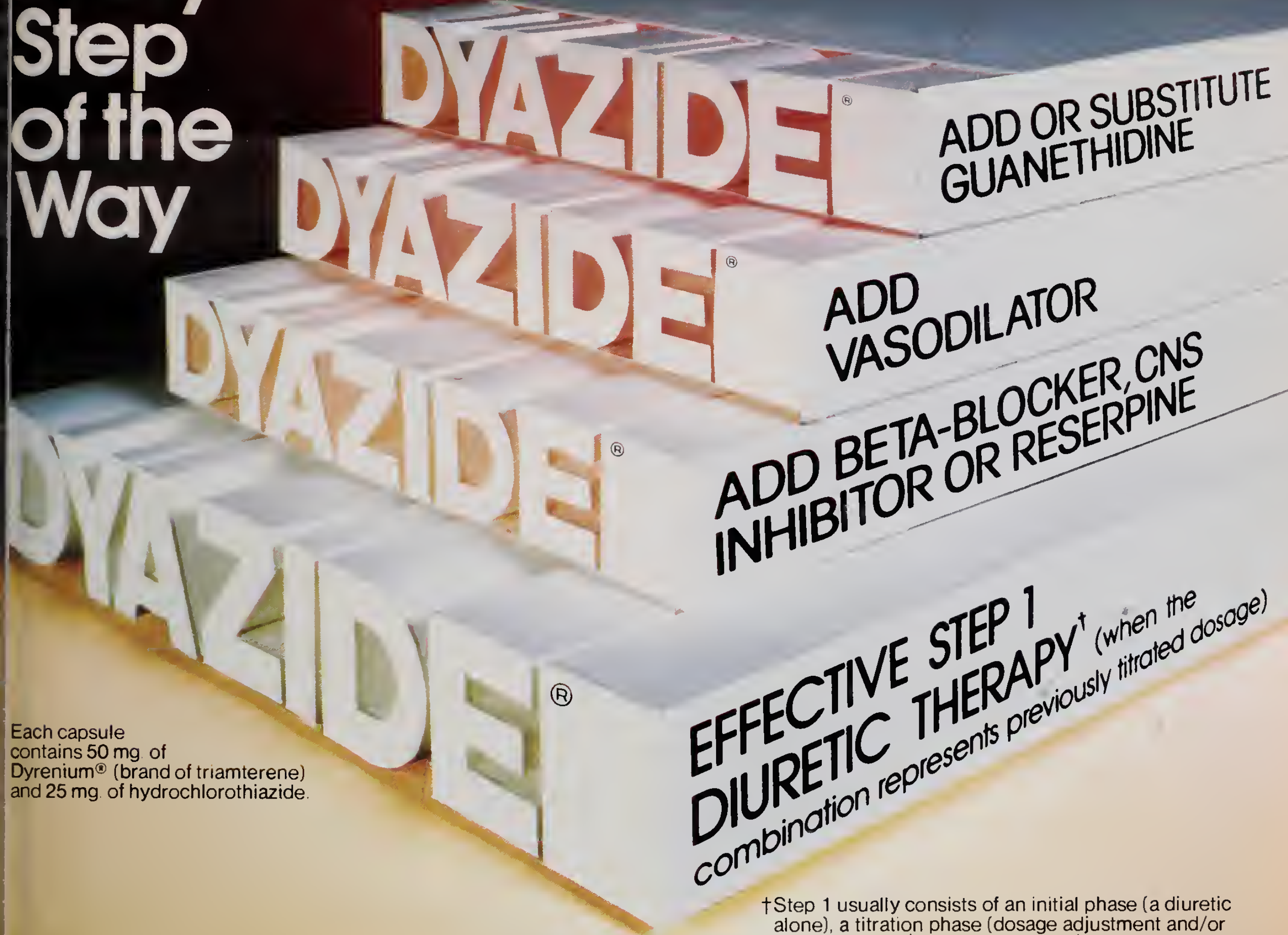
2. *Student Loans*. Summary of Loans Receivable.

Loans Receivable January 1, 1980	$696,721.72
Loans made during the year	100,000.00
	$796,721.72
Less Loan Written Off — Death	5,100.00
Less Loan Repayments	55,030.61
Loans Receivable December 31, 1980	$736,591.99

3. *Reserve for Losses*. This reserve is carried to offset uncollectable loans and to charge off student loan balances in the event of death of the borrower.

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way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†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. A brief summary follows:

WARNING
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effect may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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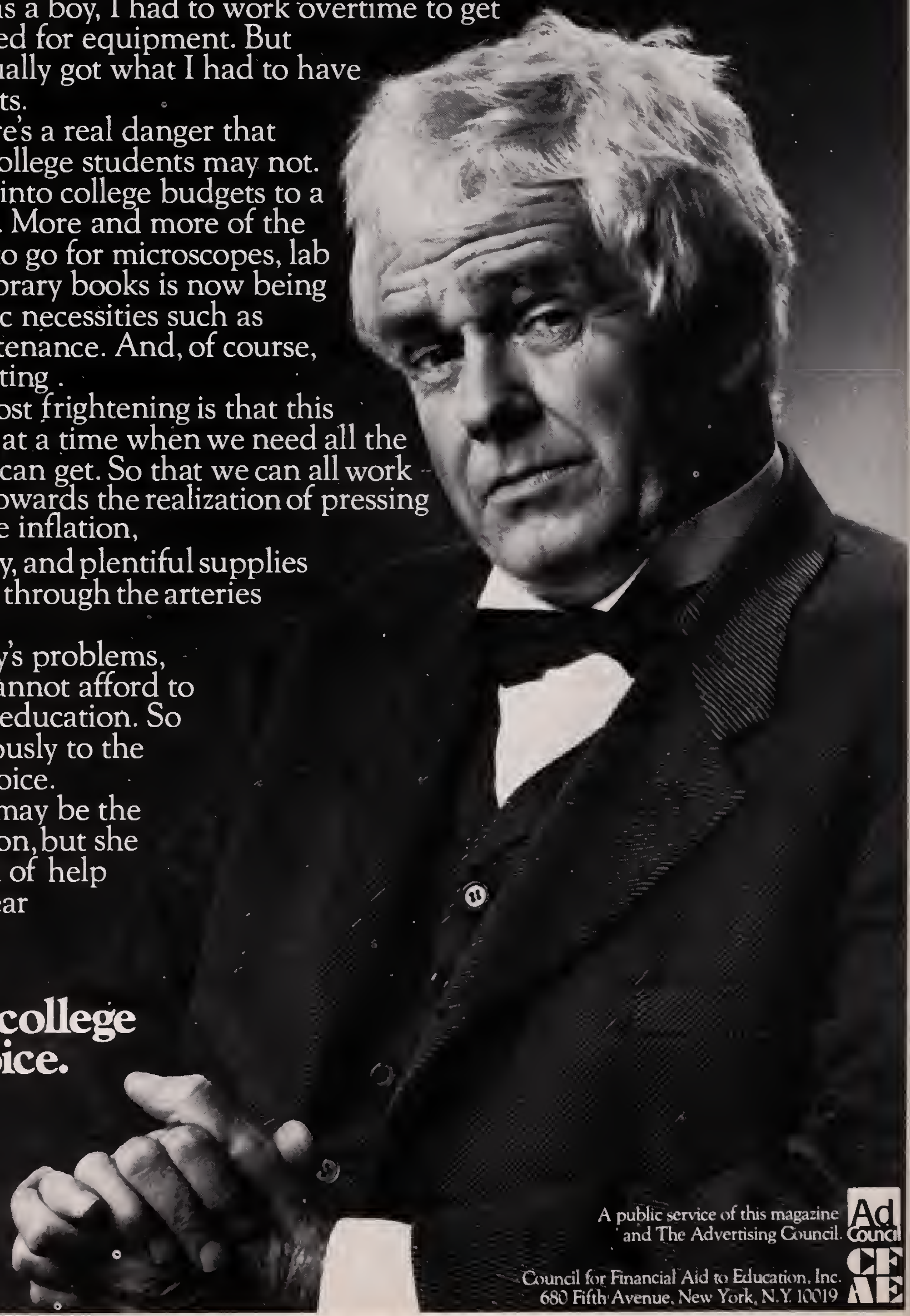

Colleges shouldn't have to choose between lighting their buildings and enlightening their students.

—Thomas Edison
Inventor

There's nothing more frustrating for a scientist than to be on the verge of a great discovery and not be able to afford the equipment he needs. I know.

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What is most frightening is that this squeeze is coming at a time when we need all the trained minds we can get. So that we can all work more effectively towards the realization of pressing goals: manageable inflation, revitalized industry, and plentiful supplies of energy coursing through the arteries of this country.

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New Members

William A. Anderson, M.D., Children's Mercy Hospital, 24th and Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Anderson is a native of Kansas City, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Missouri-Kansas City in 1976. He specializes in pediatrics and emergency medicine.

John R. Bertuso, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Bertuso is a native of Rockford, Ill., received his preliminary education at Rockford College and his M.D. degree at Southern Illinois University in 1980. He specializes in internal medicine.

Robert L. Breckenridge, M.D., Suite 100, 2700 Hospital Dr., Kansas City 64116, has become a member of Clay County Medical Society. Dr. Breckenridge is a native of Philadelphia, Pa., received his preliminary education at Georgetown University and his M.D. degree at Thomas Jefferson in 1974. He specializes in pathology.

Thomas C. Burton, M.D., University of Missouri, N315 Medical Center, 807 Stadium Rd., Columbia 65212, has become a member of Boone County Medical Society. Dr. Burton is a native of Indianapolis, Ind., received his preliminary education at Montana State University and his M.D. degree at Northwestern University in 1964. He specializes in ophthalmology.

David S. Dwyer, M.D., Truman Medical Center, Eye Clinic, 2316 Kenwood, Kansas City 64109, has become a member of Jackson County Medical Society. Dr. Dwyer is a native of Fayetteville, N.C., received his preliminary education at the University of Miami and his M.D. degree at the University of Illinois in 1979. He specializes in ophthalmology.

Steven T. Fogel, M.D., Suite 210, 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Fogel is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in obstetrics and gynecology.

Joyce A. Belik Grashoff, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Grashoff is a native of Omaha, Neb., received her preliminary education at the University of Nebraska and her M.D. degree at the University of Nebraska in 1980. She specializes in internal medicine.

Rao R. Gudapati, M.D., 302 Washington, Aurora 65605, has become a member of Ozarks Medical Society. Dr. Gudapati is a native of India, received his preliminary education at Andhra University and his M.D. degree at Andhra University in 1971. He specializes in internal medicine and physical medicine and rehabilitation.

Subhash B. Gujarati, M.D., 115 Business Loop 70 West, Columbia 65201, has become a member of Boone County Medical Society. Dr. Gujarati is a native of India, received his preliminary education at Maharashtra Education Society College and his M.D. degree at Bairamji Jijibhoy Medical College in 1973. He specializes in oncology.

Stanley E. Handshy, M.D., 6601 Rockhill Rd., Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Handshy is a native of Cherokee County, Kan., received his preliminary education at Pittsburg State University and his M.D. degree at the University of Kansas in 1979. He specializes in family practice.

Parimal K. Hor, M.D., Fulton State Hospital, Fulton 65152, has become a member of Callaway County Medical Society. Dr. Hor is a native of India, received his preliminary education at R. G. Kar Medical College and his M.D. degree at Calcutta University in 1958. He is in the general practice of medicine.

Monica T. Huston, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Huston is a native of Biloxi, Miss., received her preliminary education at Johns Hopkins University and her M.D. degree at the University of Missouri-Kansas City in 1976. She specializes in oncology and internal medicine.

Randall D. Huss, M.D., Marble Hill 63764, has become a member of Cape Girardeau County Area Medical Society. Dr. Huss is a native of St. Joseph, received his preliminary education at Westminster College and his M.D. degree at Vanderbilt University in 1977. He specializes in family practice.

George A. Kohake, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Kohake is a native of Topeka, Kan., received his preliminary education at Kansas University and his M.D. degree at Kansas University in 1979. He specializes in internal medicine.

Gregg R. Laiben, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Laiben is a native of St. Louis, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1980. He specializes in internal medicine.

Clive Levine, M.D., N217 Radiology, Medical Center, University of Missouri-Columbia 65201, has become a member of Boone County Medical Society. Dr. Levine is a native of Johannesburg, South Africa, received his preliminary education at Johannesburg College and his M.D. degree at the University of Witwatersrand in 1968. He specializes in radiology.

Johns Norman Liu, M.D., 6724 Troost, Suite 900, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Liu is a native of Baltimore, Md., received his preliminary education at Johns Hopkins University and his M.D. degree at the University of Kansas in 1976. He specializes in radiology.

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Loretta S. Loftus, M.D., 4320 Wornall Rd., Suite 530, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Loftus is a native of Tampa, Fla., received her preliminary education at Newcomb College and her M.D. degree at the University of Kansas in 1974. She specializes in internal medicine.

John J. Mahoney, M.D., TWA Medical Services, P.O. Box 2007, Kansas City 64195, has become a member of Clay County Medical Society. Dr. Mahoney is a native of Everett, Mass., received his preliminary education at Boston College and his M.D. degree at the Medical College of Virginia in 1970. He specializes in aerospace medicine.

B. J. Melia, M.D., 216 Carondelet Medical Bldg., 1010 Carondelet Dr., Kansas City 64114, has become a member of Jackson County Medical Society. Dr. Melia is a native of Kansas City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Columbia in 1960. He specializes in dermatology.

Richard B. Michelson, M.D., P.O. Box 169, 3637 Broadway, Kansas City 64141, has become a member of Jackson County Medical Society. Dr. Michelson is a native of Detroit, Mich., received his preliminary education at the University of Michigan and his M.D. degree at the University of Michigan in 1951. He specializes in general preventive medicine.

Donald R. Reimer, M.D., #30 Doctors Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Reimer is a native of Colorado Springs, Colo., received his preliminary education at the University of Colorado, and his M.D. degree at the University of Colorado in 1962. He specializes in anesthesiology.

Larry A. Rosen, M.D., Suite 500, 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Rosen is a native of Kansas City, received his preliminary education at Washington University and his M.D. degree at Kansas University in 1976. He specializes in internal medicine and oncology.

Craig A. Schuman, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Schuman is a native of Mineola, N.Y., received his preliminary education at the University of Rochester and his M.D. degree at the University of Rochester in 1980. He specializes in internal medicine.

Stanley P. Sharp, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Sharp is a native of Kansas City, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1980. He specializes in internal medicine.

Mahavir K. Shridharani, M.D., 122 E. Market, Warrensburg 64003, has become a member of Johnson County Medical Society. Dr. Shridharani is a native of India, received his preliminary education at S.E.P.P. Institute of Science and his M.D. degree at M. P. Shah Medical College in 1972. He specializes in internal medicine.

James F. Stanford, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Stanford is a native of Jefferson City, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1980. He specializes in internal medicine.

New Student Members

St. Louis University

Bridget F. Caracci
Peter T. Cheung
C. Michael Currie
Marianne Dunstan
James E. Ebel
Mark A. Faron
Zoe M. Goeckeler
William B. Guyol, Jr.
Martin D. Hoffman
Russell B. Keating
John Mitchell
Kerry Perloff
Gary M. Reagan
Chris Reynolds
Brent E. Ruoff
Kathy Sallwasser
Barry Sundland
Nancy A. Wilcox

University of Missouri-Columbia

Robert C. Clark
Michael J. Horn

University of Missouri-Kansas City

Karen A. Ellis
Anne F. Jones

Washington University

Thomas C. Chelimsky

In Memoriam

Solomon S. Tarson, M.D., 5511 W. 85th, Shawnee Mission, Kan. 66207; a graduate of the College of Medicine and Surgery, Chicago, 1911; member of Jackson County Medical Society; aged 89; died Dec. 23, 1980.

Julius Elson, M.D., 590 Sarah Lane, Creve Coeur 63141; a graduate of Washington University, 1928; member of St. Louis Metropolitan Medical Society; aged 75; died Dec. 26, 1980.

Robert S. Minton, M.D., 3912 River Rd., Rt. 2, St. Joseph 64505; a graduate of Washington University, 1933; member of Buchanan County Medical Society; aged 72; died Dec. 30, 1980.

Roland S. Bassman, M.D., 10374 Chimney Rock, St. Louis 63141; a graduate of Washington University, 1937; member of St. Louis Metropolitan Medical Society; aged 74; died Jan. 18, 1981.

John A. Saunders, M.D., Rt. 4, Box 197, Rolla 65401; a graduate of the University of Iowa, 1959; member of Mid-Missouri County Medical Society; aged 54; died Feb. 12, 1981.

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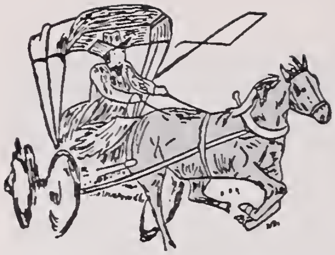

Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Phelps-Crawford County Medical Society met at the Nelle McFarland Memorial Hospital in Rolla on December 9. The following officers were elected for 1941: president, Dr. A. H. Horne, Steeleville; vice-president, Dr. A. A. Drake, Rolla; and secretary-treasurer, Dr. R. E. Breuer, Newburg.

The Revenue Act of 1940 imposes a tax on residents of the United States of 4% on net income in excess of exemptions and credits.

The Ste. Genevieve County Medical Society held its annual meeting in Ste. Genevieve on December 11 and elected the following officers for 1941: president, Dr. R. C. Lanning; vice-president, Dr. G. M. Rutledge; and secretary-treasurer, Dr. R. W. Lanning.

Edward Jewett Goodwin, M.D., died on February 18 at the age of 73 at St. Luke's Hospital in St. Louis. He was secretary-editor emeritus of the Missouri State Medical Association.

Dr. Evarts A. Graham, St. Louis, has been elected to the Royal Society of Sciences of Upsala, Sweden, an organization founded in 1710.

The Army has established a board of civilian physicians for the investigation of influenza and other epidemic diseases. This was ordered by the Secretary of War, acting on the recommendation of Surgeon General James C. Magee.

TWENTY-FIVE YEARS AGO

The Audrain County Medical Society held its regular monthly meeting on Dec. 19, 1955 in the cafeteria of the Audrain County Hospital. The meeting began with dinner at 7 PM. The following officers were elected for 1956: president, Dr. Glenn Kallenbach; vice-president, Dr. Harold Lankford; and secretary-treasurer, Edgar S. Wallace . . . all of Mexico (Mo.).

Dr. Albert Kuntz, director of the Department of Anatomy at St. Louis University School of Medicine and secretary of the University's chapter of Alpha Omega Alpha, has announced the names of 14 seniors who have been elected to membership in this national honorary medical society. They are Basil I. Allaire, Ronald V. Erken, Leonard F. Fagan, Edwin H. Hanekamp, Wilbert J. Henke, Merton L. Howard, Gerold S. Klee, Arthur W. Neilson, Stanley J. Nonewicz, Miss Rosemary E. Schmidt, Peter J. Soto, John M. Tierney, Miss Dorothy Jane Worth and Edward J. Zenni.

Dr. Leonard T. Furlow, associate professor of clinical neurological surgery at Washington University, recently was named president-elect to the St. Louis Medical Society for 1957. He is a past-president of the St. Louis Surgical Society.

TEN YEARS AGO

Dr. Donald Kuenzi, Kansas City, has been elected president of Clay County Medical Society for 1971, assuming the position formerly held by Dr. Richard Bowles of Liberty. Other Kansas City members elected were Dr. Paul Revare, president-elect; Dr. Daniel Boone, vice-president; and Dr. Felix Pileggi, secretary-treasurer.

Twenty-six members of the Grand River Medical Society and the Auxiliary braved the cold Chillicothe weather to meet at the Strand Hotel on Jan. 14, 1971. Dr. Donald Dowell, Chillicothe, presented a President's Plaque to Dr. B. D. Howell of Brookfield for his service in 1970.

Dr. Falls B. Hershey, a vascular surgeon, was installed as president of the St. Louis County Medical Society in ceremonies at LeChateau on January 22. Other officers installed were Drs. Jack R. Eidelman, president-elect; Robert H. Lund, vice-president; and Frederick D. Peterson, treasurer.

The Regents of the American College of Surgeons feel obligated to inform the public that the rising number of lawsuits against physicians is seriously threatening the quality of surgical care and increasing its cost to patients, according to C. Rollins Hanlon, M.D., Director.

Missouri Medicine

Vol. 78, No. 4 (ISSN 0026-6620) April, 1981

The Need
for
"PR Thinking"
in Your
Medical Practice

Emphysematous
Pyelonephritis

Case Reports

BRARY OF THE
MAY 14 1981

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The
Medical Audit
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Misuse
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MISSOURI STATE MEDICAL ASSOCIATION

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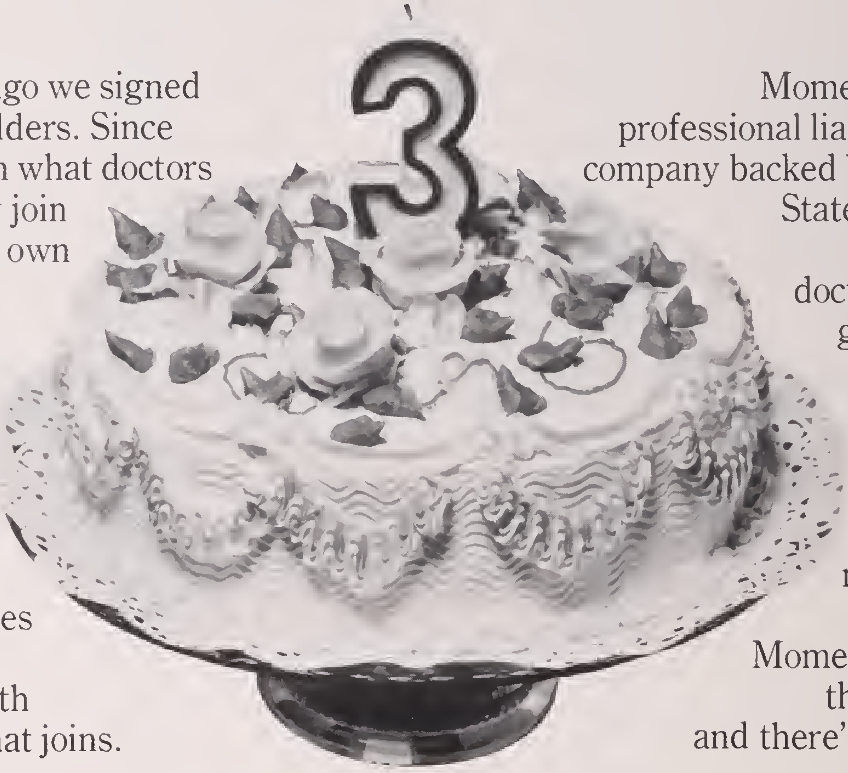

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Complete literature available on request from Professional Services Dept. PML.

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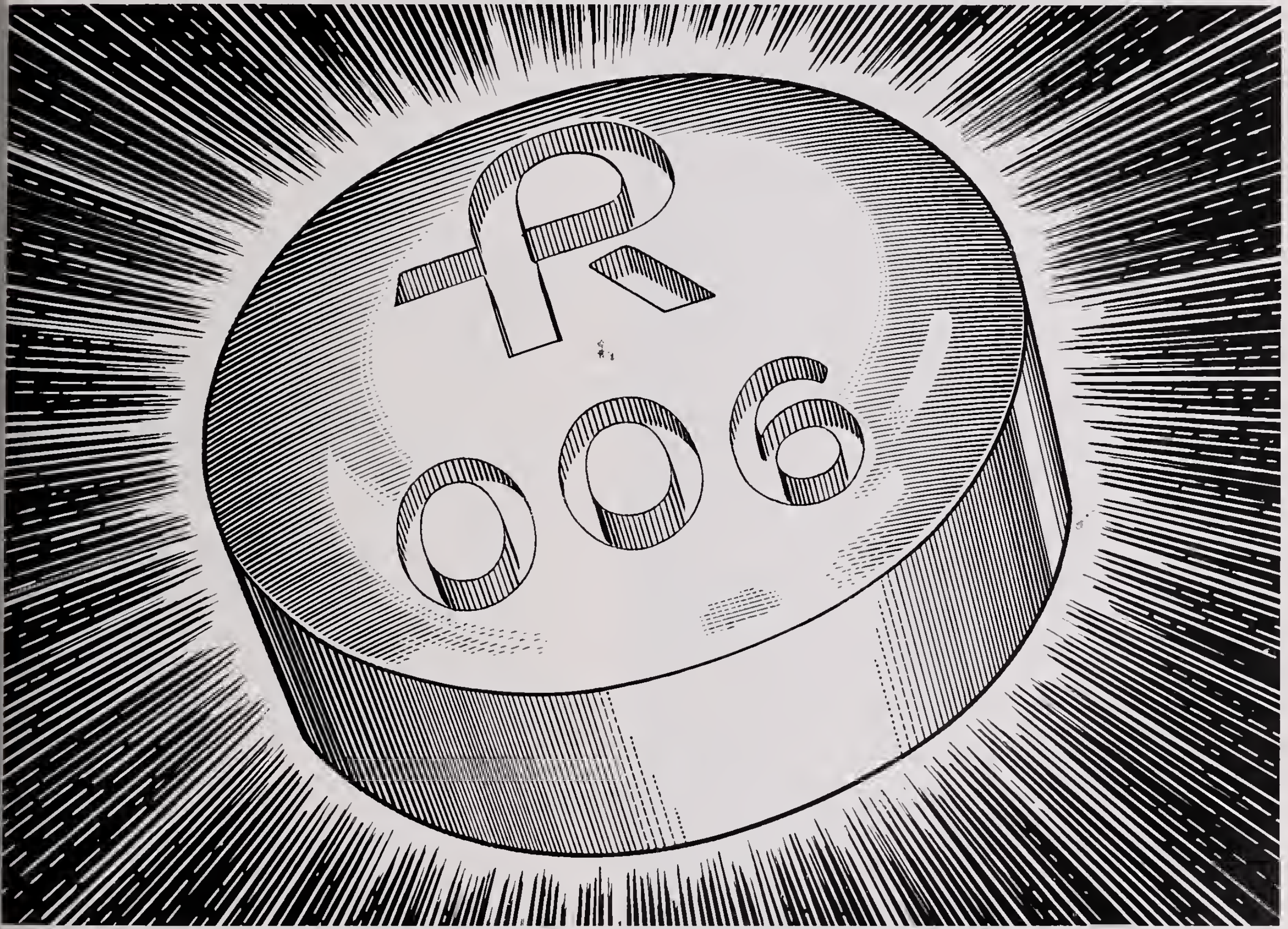

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Missouri State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript.

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References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

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MSMA

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NEWS ROUND - UP

April, 1981

'Chiros' move to expand scope

Annual attempts by certain professions to expand their scope of practice into the field of medicine are again attracting the attention of the MSMA during the current Missouri General Assembly.

A major drive is underway by certain chiropractors to redefine their practice to include treatment of the entire body rather than be limited to manipulation of the spine. In addition, under current state statutes chiropractors are restricted to treatment "by hand" whereas under the proposals they could utilize any mechanical, electrical or natural method of treatment.

In the House, HB 658/460 has been actively opposed by the MSMA but has been reported favorably by committee and awaits action by the full body. In the Senate, although a similar bill was held in committee, it is expected that a move will be made to substitute the language of the House bill for SB 340, which deals with the Board of Chiropractic.

John I. Matthews, M.D., chairman of the MSMA Committee on Legislative Affairs, has requested that MSMA members individually contact their Representatives and Senators expressing opposition to HCS 658/460 and the proposed substitute for SB 340. "These bills pose great problems for the people of Missouri since they are obvious attempts to expand chiropractic into treatment areas for which they have not been educated or trained," said Matthews.

"I just hope physicians will exhibit as much effort to defeat these measures as chiropractors will to get them passed."

In another area, SB 91, which would allow optometrists to use certain topically applied drugs, was quickly reported by a committee and is expected to be discussed on the floor of the Senate soon. The sponsor of the bill is expected to offer amendments to the bill which would (1) require optometrists to refer patients to a physician if any pathology is found or if the patient could not be corrected to better than 20/40; (2) require both didactic and clinical training in pharmacology and; (3) limit optometrists to using three classes of drugs — anesthetics, mydratics and cycloplegics.

The MSMA will work for adoption of these amendments to answer many of the problems medicine has had with this issue.

Licensing of allied health professionals is another area receiving attention from the Legislature. Nearly a dozen allied professions are seeking credentialling and, of that number, three groups have posted early gains. A bill to license occupational therapists (HB 446) has passed the House while bills to register physician assistants (HB 307) and athletic trainers (HCS 662) have been acted upon favorably by committee.

The MSMA has expressed concern that licensing of additional allied health personnel will lead to shortages of personnel and, ultimately, increase the cost of services received.

Several other bills of interest to medicine have received review and action during the current Session. These include:

- HCS 367/438, which would establish a Statewide Arthritis Program, received first-round House approval. The bill was amended to legalize the manufacture, use and sale of DMSO (dimethyl sulfoxide) for the treatment of arthritis.
- HB 164, which would establish a Missouri Poison Control Network, has been perfected and is awaiting a budget review.
- HB 541, which could require Blue Cross/Blue Shield to pay for chiropractic services, is awaiting full House action.
- HB 693, which would place health maintenance organizations under regulations established by the State Division of Insurance, has been reported out of committee.
- HCS 379/193/434, which would place more strict state regulations on radiation hazards, has been recommended Do Pass.
- SB 16, which includes provisions that would allow the Board of Healing Arts to set its own fees, has received first-round approval in the Senate.
- SB 63, which would allow Medicaid to pay for personal care services that enable an ill person to remain at home rather than be institutionalized, has passed the Senate.
- SB 373, which would remove epilepsy as a reason to deny a marriage license, has passed the Senate.

The MSMA is following more than 150 bills which would have some impact on the profession or patients. As the Legislative Session continues, MSMA members are encouraged to contact Headquarters with questions or information regarding legislation.

MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number
314-636-5744

MSMA Legislative Contacts Needed

The following are some of the State Senators and Representatives needing MSMA Legislative Contacts. (This list will be continued in the May News Round-Up.) If you know these legislators or know a physician who knows them and would be willing to contact them, please notify MSMA Headquarters.

Senator	District	City	Zip
Marvin Dinger	20	Ironton	63650
Edwin Dirck	24	St. Ann	63074
James Murphy	1	St. Louis	63116
John Schneider	14	St. Louis	63136
John Scott	3	St. Louis	63109
Lee Swinton	9	Kansas City	64132

Representative	District	City	Zip
Ron Auer	99	St. Louis	63118
Jim Barnes	42	Raytown	64133
Charles Becker	123	Arnold	63010
Mary Bland	30	Kansas City	64130
Billie Boykins	82	St. Louis	63106
Francis Brady	61	Jennings	63136
Robert Brandhorst	83	St. Louis	63104
Charles Bratkowski	73	Overland	63114
LeRoy Braungardt	49	Moscow Mills	63362
Fred Brummel	53	Bellefontaine Neighbors	63137
Jack Buechner	94	Kirkwood	63122
E.J. Cantrell	74	Overland	63114
Dewey Crump	71	Maryland Heights	63043
Phil Curls	28	Kansas City	64128
George Dames	50	O'Fallon	63366
Patrick Dougherty	98	St. Louis	63116
Thomas Eckhardt	100	St. Louis	63110
Russell Egan	85	St. Louis	63110
Bob Feigenbaum	59	Ferguson	63135
John Fowler	3	Newton	64667
Robert Fowler	69	Ferguson	63155
Estil Fretwell	1	Canton	63435

CPI shows lower increase in physician care costs

For the past two years, the rate of inflation in the general economy was higher than the rate of inflation in physician care costs.

A year end summary from the Consumer Price Index (CPI) states that in 1980 the all items index rose 12.4% as compared with an 11.0% increase in the physician's service index. In 1979, the CPI all items index rose 13.3%, compared to a 9.4% increase in physician's services.

The report also states that the past two years have been the only two successive years of double digit prices increases, measured by the CPI all items index, since World War I.

MSMA receives AMA membership award

During the AMA Leadership Conference, the Missouri State Medical Association received the AMA Membership Award for "exceeding its AMA membership record for the fourth consecutive year."

The number of MSMA members belonging to the AMA in 1980 increased by 695 over the previous year. In 1979, there were 4,031 dues paying and dues exempt members belonging to the AMA. In 1980, there were 4,726 MSMA members belonging to the AMA.

Openings available for spring workshops

Several openings are still available for the spring workshops offered by the MSMA.

The "Establishing Yourself in Medical Practice" workshop, designed for resident physicians, will be held April 30-May 1, 1981 at the Chase-Park Plaza Hotel in St. Louis.

Three half-day medical office management workshops will be held May 19-20 in Joplin and May 21-22 in Springfield. Physicians and medical office staff are encouraged to attend.

Physicians contribute to sponsor medical students to Annual Session

The MSMA student fund, which was initiated in 1978, sponsors the attendence of medical students to the Association meetings to enable students to gain first hand knowledge of the workings of the MSMA.

To date, the following have made contributions to the fund:

A.J. Signorelli, M.D., St. Louis
F. Anthony Thomas, M.D., Kansas City
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Medical Staff of Research Medical Center, Kansas City
Unified TMC Staff Fund, Kansas City
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Manganese (as Manganese Sulfate)	1 m
Magnesium (as Magnesium Sulfate)	2 m
Zinc (as Zinc Sulfate)	1 m
Iron (as Ferric Pyrophosphate, Soluble)	22 m
Alcohol	18

See prescribing information on last page of this advertisement.

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Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

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- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1 0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription

February 1980

TWIN-K

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassiur ions and 4 mEq of chloride ions as a combination of potassiur gluconate, potassium citrate, and ammonium chloride, in a sorbito and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatmen of hypokalemia which may occur secondary to diuretic o corticosteroid administration. It may be used in the treatment o cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreatec Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. Thi product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended tha TWIN-K-Cl be taken with meals or diluted with water or fruit juice A tablespoonful (15 ml) in 8 ounces of water is approximatel isotonic. More than a single tablespoonful should not be take without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significan role in body physiology. The serum level of potassium is normall 3.8-5.0 mEq/liter. While the serum or plasma level is a poo indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia

The most common cause of hypokalemia is excessive loss o potassium in the urine. However, hypokalemia can also occur wit vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it i difficult to produce potassium intoxication by oral administratio However, potassium supplements must be administered wit caution since, usually, the exact amount of the deficiency is nc accurately known. Checks on the patient's clinical status an periodic EKG and/or serum potassium levels should be made High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and chloride deficiency (hypokalemic hypochloremic alkalosis), ther will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of th extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardia arrhythmias and heart block Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the wave, widening and slurring of the QRS complex, changes of th ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larg than 30 ml can produce gastric irritation with nausea, vomitin diarrhea, and abdominal discomfort.

OVERDOSAGE

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2. Intravenous administration of 300 to 500 ml/hr of a 10 dextrose solution containing 10-20 units of crystalline insul per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilize on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6 fluid ounces of water or fruit juice, two to four times a da This will supply 30 to 60 mEq of potassium ions and 8 to 16 mE of chloride ions. The usual preventative dose of potassium 20 mEq per day while therapeutic doses range from 30 mE to 100 mEq per day Because of the potential for gastrointestin irritation, undiluted large single doses (30 ml or more) TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no avera total daily dose can be defined, but must be governed by clo observation for clinical effects

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-1

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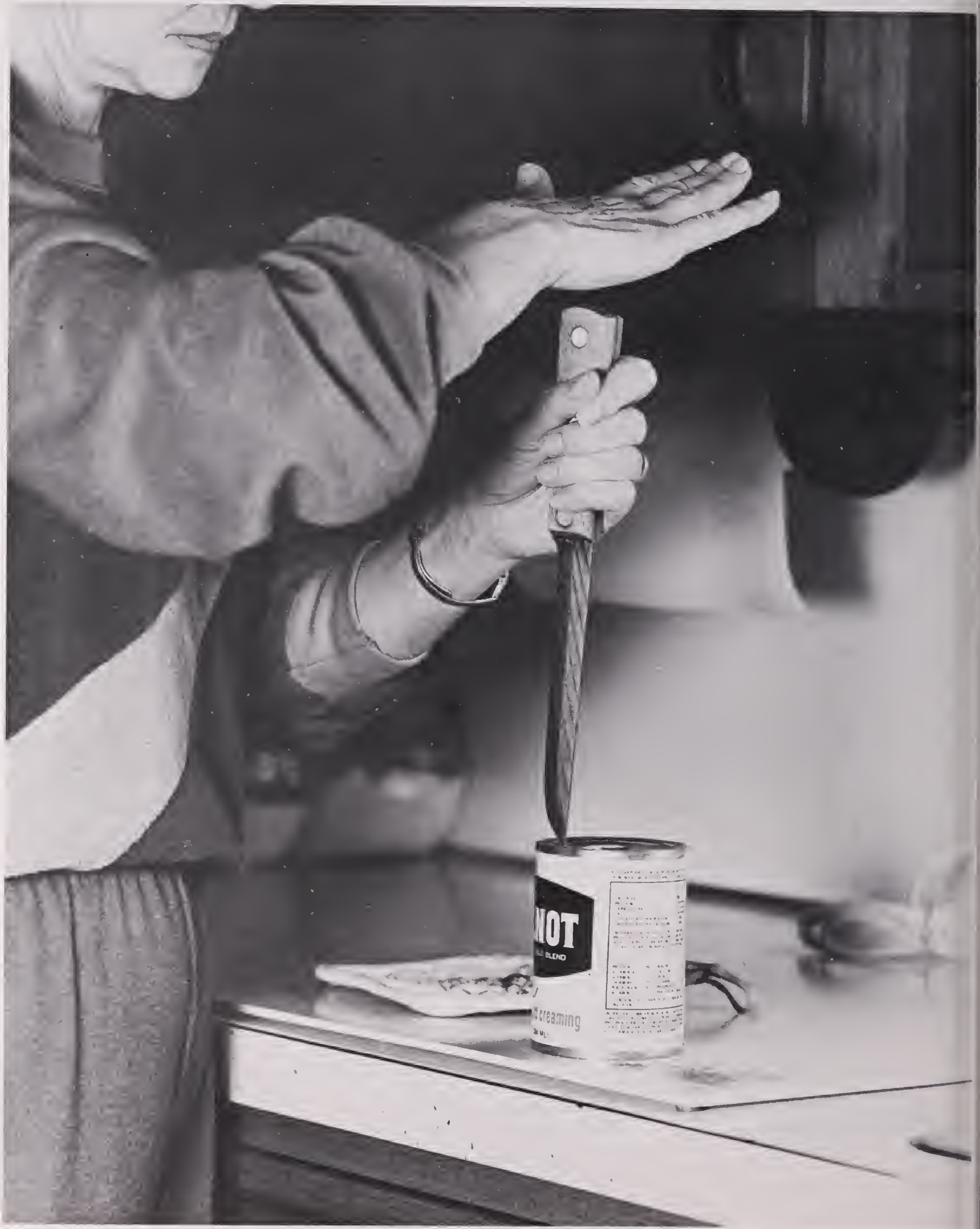
Photo-Comment by James W. Clawson, M.D., Springfield


NOT
BLEND
creaming

"Thirty years of doing it like this doesn't mean it's the best way."

Editor's Corner

The Medical Audit in Perspective

Let's start with the admission that the science of medicine has progressed at an amazingly rapid pace during the past-century. I believe even the most militant critic of medicine would be forced to agree.

This being true, I have been amazed at the timidity shown by the medical profession in accepting the many sorts of regulations thrust upon it and, in particular, that of the Medical Audit.

There can be only one reason for the enforced Medical Audit. That is to check the competence and honesty of the physician. So far as I am aware, most physicians are human beings and, therefore, a certain percentage are not shining lights when it comes to competence and honesty. For those I grieve and I am ashamed but I believe them to be few. However, in a society which tolerates lawyers and judges who seem beyond the law and beyond recourse, and whose lack of competence is unquestioned, my only comment is that I am proud, by comparison, to be a physician with all my faults. Therefore, I believe the Medical Audit could be far better applied elsewhere.

But, aside from its intended purpose, I believe the physician who is properly humbled can learn something from this audit. In an open discussion of how things are done, and how they might be done better on his own home ground, he has a prime opportunity to compare his efforts with those of his fellows. Here is a discussion, within his own cosm, of the everyday problems of medical practice. A rare opportunity indeed!

Thus, I recall the crusty comment of a doctor-friend, a generation older than myself. He said, "In medicine, there is nobody who irritates me as much as an old fool who has done something wrong for 30 years and calls it experience."

So, perhaps, if we live within the tiers (tears) of an auditing bureaucratic millstone, there might just be something better come of it than what was intended. That is the opportunity for a chap to estimate his own performance and damn well do so because he wishes to perform better.

There is an old English proverb that "it is the unexpected that one can expect," and here might be another side of the coin.

Wilfred E. Wooldridge

Wilfred E. Wooldridge, M.D.

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

Many of the most knowledgable people feel that I became the No. 1 prescribed medication in America because no other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

For a brief summary of product information on Valium (diazepam/Roche) Ⓒ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® Ⓒ
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise agains simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention blurred vision Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect. *Adults* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i d to q i d alcoholism, 10 mg t.i d or q.i.d in first 24 hours, then 5 mg t i.d or q i d as needed adjunctively in skeletal muscle spasm, 2 to 10 mg t i d or q i.d , adjunctively in convulsive disorders, 2 to 10 mg b i d to q i d *Geriatric or debilitated patients* 2 to 2½ mg 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions) *Children* 1 t 2½ mg t.i d or q i d initially, increasing as needed and tolerated (not for use under 6 months)
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10

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6. What is MDA's attitude toward settlements and defense of claims?

   MDA cannot settle out of court without the doctors written permission. This is in keeping with our policy of aggressive defense on all claims.

7. Can MDA cancel or non-renew a doctor if he has a claim?

   We guarantee against arbitrary cancellation. It is written in our policy.

8. How can I obtain more information on how to join this company?

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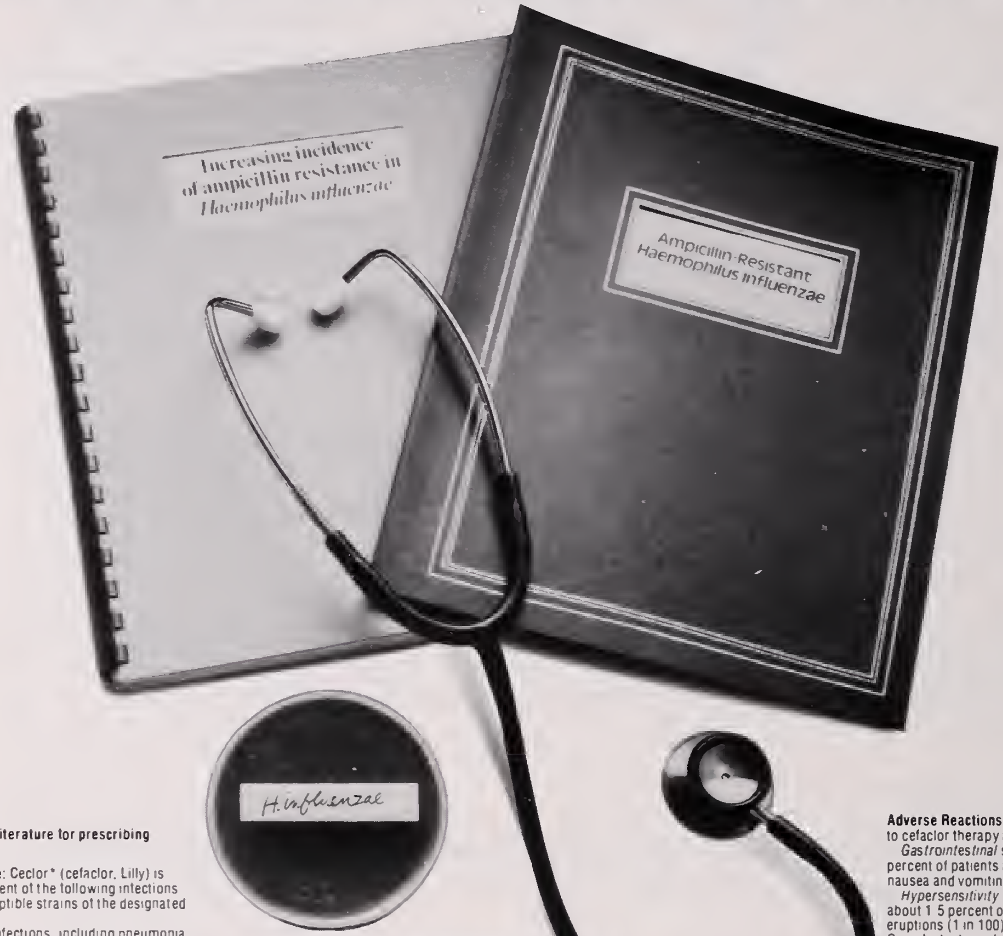
Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin-Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered relat to cefaclor therapy are uncommon and are listed belo

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbillifor eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patient

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy include eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyt count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [10308

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note Ceclor® (cefaclor) is contraindicated in patien with known allergy to the cephalosporins and shoul be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatm and prevention of streptococcal infections, includin the prophylaxis of rheumatic fever See prescribing information.

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ROBERT FEIT, M.D., SAUL BOYARSKY, M.D., *and*
JOHN B. BUETTNER, M.D., *St. Louis*

Aortic Aneurysm Presenting as Ureteral Obstruction

Case Report

The authors report an unusual presentation of atypically presenting abdominal aortic aneurysm with severe perianeurysmal fibrosis and unilateral ureteral obstruction simulating a retroperitoneal lymphoma. They review presenting symptoms and discuss radiologic diagnosis and treatment.

Drs. Feit and Boyarsky are from the Division of Urology, Department of Surgery and Dr. Buettner is from the Department of Surgery, Washington University School of Medicine.

Abdominal aortic aneurysms are known to masquerade as varied retroperitoneal disease processes, as stressed by Uhle[1] and Lazarus[2] in the early 1940s. Their close association with the urinary tract allows them the capacity to simulate urologic problems. In a review of 400 abdominal aortic aneurysms treated surgically at the Mayo Clinic, Culp[3] stated that 10% of the patients had initial complaints suggesting some type of genitourinary disorder. In a similar review by Burke[4] 14% (9/65) of symptomatic patients complained of urologic symptoms. Twenty percent (19/93) of asymptomatic patients were first discovered to have an aneurysm during the course of a genitourinary evaluation for an unrelated problem.

Although there have been only 18 reported cases of ureteral obstruction secondary to periureteral fibrosis, or to compression from an abdominal aortic aneurysm, the possibility must always be considered. Failure to do so may result in misdiagnosis, complications and treatment delay.

The following case report illustrates this consideration:

Case Report

A 56-year-old white man was admitted to Barnes Hospital with complaints of weakness and listlessness. The patient had been well until about eight weeks prior to admission. He then noted the onset of an aching discomfort in the lower back, associated with a vague sensation in the left groin and some swelling in the left side of the scrotum. The patient denied chills, fever, sweats, weight loss and anorexia and had noticed no peripheral adenopathy.

His past medical history included hospitalization in 1972 for evaluation of a fever of unknown origin. A work-up disclosed minor liver function abnormalities and mild peripheral and bone marrow lymphocytosis. During a period of three weeks, his temperature was intermittently found to be 38c-38.5c. No diagnosis was made. His illness subsided spontaneously with return of all hematologic values to normal.

Physical examination on this present admission revealed a blood pressure of 140/80. Abdominal palpation revealed no masses, tenderness or aortic pulsations. No bruits were heard. A small left varicocele was

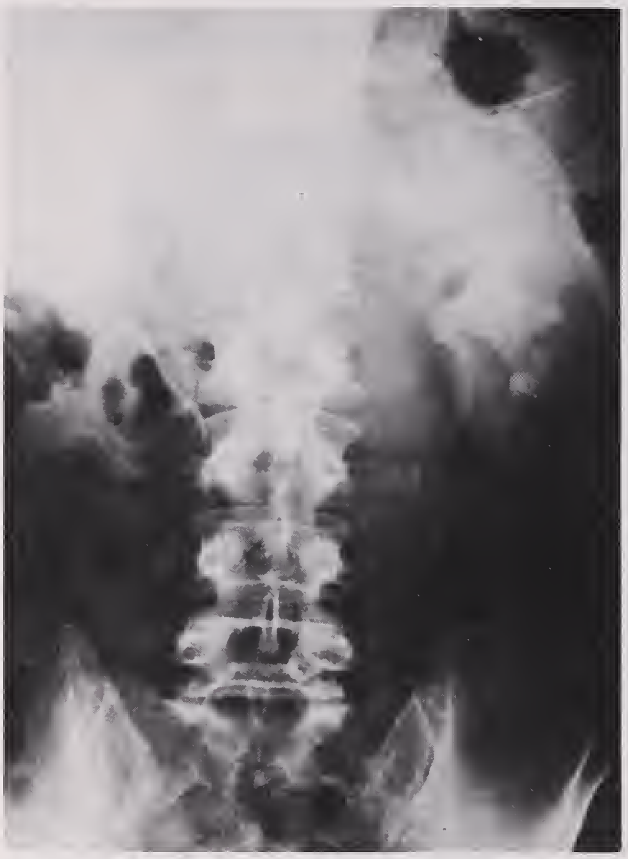

Fig. 1 Preoperative IVP shows left hydronephrosis to level of L-3 and right ureteral deviation at L3-4.

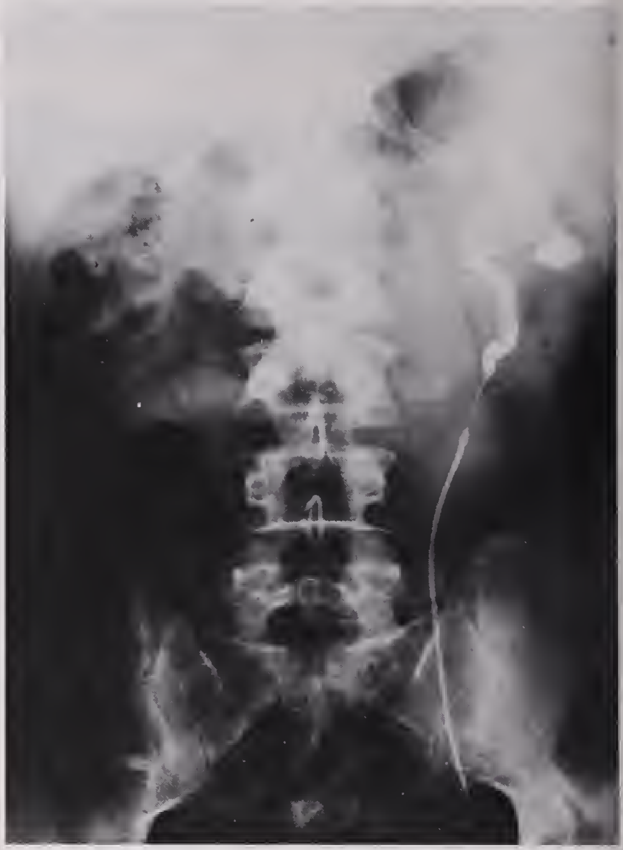

Fig. 2 Left retrograde ureterogram shows stricture at level L-3.

palpable, the appearance of which the patient had just noted within the past three weeks. There was no peripheral edema. Distal arterial pulses were palpable. The hemoglobin level was 12.0 gm/100 ml and white blood cell count was 7,900. Serum creatinine level was 1.4 mg/100 ml. SMA 12 was within normal limits. Serum acid phosphatase was normal.

Urinalysis revealed microscopic hematuria and urine culture showed no growth. An excretory urogram (IVP) disclosed left hydronephrosis and right ureteral deviation at level L 3-4 (Fig. 1). Cystoscopy was normal. A left retrograde ureterogram disclosed a 2 cm stricture at the level of L (Fig. 2), which was felt to be secondary to extrinsic compression. Results of a barium enema were unremarkable. A CAT scan showed a large retroperitoneal mass from L_1-L_4 thought to be caused by lymphoma because it was "undeniably solid" (Fig. 3).

Hematology and general surgery consultants concurred in the diagnosis of lymphoma. Exploratory laparotomy revealed a hard, woody, glistening, white fibrous mass lying just adjacent to the body and tail of the pancreas and extending inferiorly to the iliac bifurcation and encompassing the aorta, vena cava and both ureters. Multiple frozen section biopsies of the mass and adjacent nodes revealed only chronic inflammation and fibrosis. Because of bleeding from the depth of the mass on repeated biopsy, it was felt there may have been an atypical aortic aneurysm. An aortogram was obtained confirming that diagnosis (Fig. 4). A dacron bifurcation graft was inserted without an attempt at a seemingly impossible ureterolysis. Final pathology diagnosis included retroperitoneal fibrosis. The patient was discharged doing well on the eighth postoperative day. Follow-up urograms revealed a normal right kidney and collecting system with a nonfunctioning left side. The patient returned for his third annual follow-up with no complaints or complications.

Discussion

Similar delay in diagnosis has been described by Abercrombie,[6] whose patient had exploration for presumed metastatic renal cell carcinoma obstructing the ureter, and by Albers,[7] who reported the exploration of a patient for an undiagnosed ureteral obstruction, though the patient's symptoms of colic, normal urine, impotency and hypertension might have suggested the correct etiology.

In considering aortic aneurysm as a cause of ureteral obstruction, the following signs and symptoms are noteworthy.

1. Pain suggesting colic — which classically originates in the flank or lower abdomen with radiation to the testes or thighs or both and is often confused with true ureteral colic.[8] Such

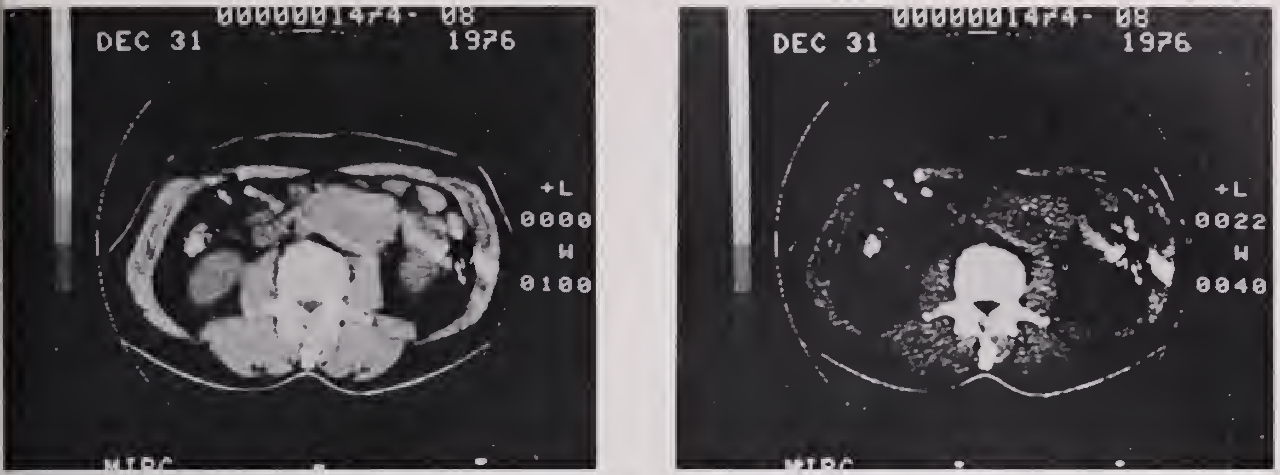

Fig. 3 One level of CAT scan shows large mass density surrounding aorta and vena cava, most likely representing retroperitoneal tumor reported as probably lymphoma with slightly enlarged left kidney compatible with hydronephrosis.

pain has been attributed to vertebral erosion, nerve root irritability and, also, leakage from the aneurysm. In fact, Culp[3] states that whenever colicky pain occurs in an older patient with a normal upper urinary tract, an aortic aneurysm should be suspected. This clue was not relevant to our case.

2. An excretory urogram may show displacement of the kidney or ureter and associated linear opacities which may be visible on only oblique or lateral views. Unfortunately, these classic calcifications may be late signs.[9, 10] Therefore, one should not be misled by their absence. This exception was shown in our case.

3. An additional sign of aortic aneurysm is traction displacement of the ureter. In this instance, the ureter on the concave side of an aneurysm appears to be drawn medially. Peck,[11] reporting on 45 random cases of surgically proven aortic aneurysms with preoperative IVPs, concluded that 71% (32/45) had some ureteral deviation and 55% (25/45) had a significant medial displacement to the point that the ureters passed over a vertebral body or close to its lateral border (usually L_4). Also, traction displacement was found present in four to five cases of uncalcified aneurysms, which was the situation in our case.

We should explain that normal anatomic variants commonly produce similar findings. Saldino[12] found 18% (42/232) of IVPs interpreted as negative where the ureters (usually the right) overlay or fall medial to the lower lumbar (L_5) or sacral pedicles (S_1). In comparison, traction displacement is found typically at a level which is superior to this point usually involving the L_4 level.

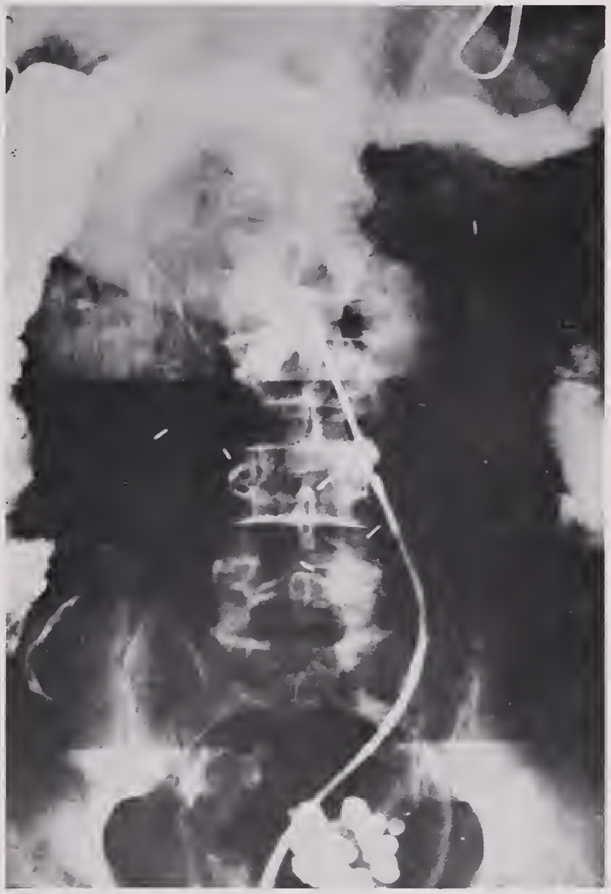

Fig. 4. Intraoperative aortogram showing aberrant aortic aneurysm.

Other findings associated with aortic aneurysm include the following:

4. Genital ecchymosis.

5. Sexual disturbance with loss of libido and potency.

6. Pulsating abdominal masses which are present in only about half of the cases.

Though one finds ureteral displacement by large abdominal aortic aneurysms, they are rarely obstructive.[6, 13, 14] Obstruction, such as seen in our case, is associated with a fibrotic reaction in which the ureters are trapped in a peri-aneurysmal fibrosis rather than by pressure or displacement by the aorta alone.[15] Labardini and Ratliff[16] found that only 3% of their 93 patients demonstrate obstructed ureters attributable to abdominal aortic aneurysm, though 25% had abnormal IVPs due to ureteral deviation. When medial displacement of a ureter occurs (though lateral deviation might be expected secondary to an expanding mass), a small aneurysm[6] with early vascular inflammatory reaction should be suspected,[3, 9] with the ureter potentially being caught in the desmoplastic reaction and slowly strangled.[17] This entity was described by Ormond[16] in 1948. He reported bilateral ureteral obstruction secondary to a nonmalignant retroperitoneal inflammatory process, with some 440 cases having been subsequently reported to date.[18]

An interesting aspect of our case is the possible association between the patient's previous fever of unknown origin in 1972 and the subsequently discovered aortic aneurysm in 1976. Murray[19] reported two patients initially treated for presumed acute bacterial endocarditis who actually had dissecting aneurysms. Two others had prolonged febrile episodes of five and 11 weeks respectively. Hirst,[20] in a detailed review of 505 cases of dissecting aortic aneurysms, found fever higher than 38C in 23.6% of patients, with 7.9% having fever higher than 39C. Petersdorf[21] has attributed this fever to hematomas and other products of cell injury, inducing the release of endogenous pyrogens from polymorphonuclear leukocytes sequestered within the aortic hematoma. These are carried by the circulation to the hypothalamus where they initiate neurogenic stimuli to disrupt normal thermoregulation by that center.

Treatment of the aortic aneurysm should include resection of the aneurysm with synthetic graft replacement, when possible, and ureterolysis leaving the aneurysmal wall attachments to the ureter to prevent denudement of its vascular supply.[5] Intraperitoneal transposition with fat,[7] caecum or sigmoid colon[22] interposed between the ureters and retroperitoneal fibrosis should be considered. There are situations, such as our case and others, when the entrapment of the retroperitoneal fibrosis is so great that it is not possible to free the ureters safely and, therefore, proximal urinary diversion should be considered if the kidney cannot be sacrificed.[15]

Alternately, in select cases, when combined with perianeurysmal fibrosis, aneurysmectomy may not be necessary. Abercrombie[6] and Crane[13] discuss the rarity of spontaneous aortic aneurysm rupture when it is prevented by a thick fibrous layer surrounding the aorta. Thus, in severely or chronically ill patients, as from uremia, ureterolysis, without aneurysmal resection, may be the procedure of choice. Contrarily, Redman[5] reported a patient with an iliac artery aneurysm and mechanical obstruction in whom simple decompression of the aneurysm without freeing the aneurysmal wall from the ureter succeeded in relieving the obstruction. This approach was instituted in our case because of the magnitude of the aortic resection, but it was unsuccessful in restoring ureteral function.

Our report brings into question one's reliance upon new diagnostic instruments, such as the CAT scan. In retrospect, the aortic aneurysm was discernable on the original scan but not interpreted as such because of its thickened walls. With experience and time, accuracy in interpretation will improve the diagnostic potential of this new modality.

SUMMARY

We have illustrated the association between abdominal aortic aneurysms with severe retroperitoneal fibrosis and ureteral obstruction. The aneurysm may have been responsible for the fever of unknown origin, excited the unusually heavy fibrotic reaction with extensive retroperitoneal involvement causing entrapment of the ureter and yet, provoked no localized pain other than that attributable to the resultant ureteral obstruction at a late stage of the disease. This subtlety, coupled with failure of the CAT scan to distinguish a solid tumor ingrowth into the aorta from a heavily fibrosed slowly dissecting aneurysm, led to the delay in diagnosis until exploration.

We wish to reaffirm the primary role of clinical judgment against undue heavy reliance upon modern instrumental diagnostic techniques no matter how attractive they may initially appear.

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(Continued on page 192)

JOHN C. HAGAN, III, M.D., *Kansas City*

Misuse of Topical Ocular Anesthetics

Since numerous serious side effects result when topical ocular anesthetics are used inappropriately, the author emphasizes that there is no reason to prescribe or dispense these medications for ocular pain relief.

Dr. Hagan is from the Department of Ophthalmology, University of Missouri-Kansas City School of Medicine and the staffs of North Kansas City Memorial and Liberty hospitals.

MEDICAL PHARMACOLOGY grows increasingly complex. Appropriate use of most drugs requires familiarization with an often complex list of indications, contraindications, side effects and cross reactions. This is not the case with the therapeutic use of ocular anesthetics. There exists, at this time, no indication or reason for a physician to dispense or prescribe a topical ocular anesthetic. The purpose of this article is to emphasize the possibly serious side effects of prescribing topical anesthetics for relief of eye pain.

CASE REPORT

An 83-year-old white woman was seen on referral from her family doctor due to a red, painful eye. She related that her left eye had "herpes" in the distant past. Five to six years ago, she saw a general practitioner (not the referring physician) for eye pain. He prescribed benoxinate (Dorsacaine) eye drops for relief of pain. These "worked like magic." However, the redness and pain persisted and she continued to use the drops one to five or six times per day. The drops were refilled by the general practitioner until his retirement two years ago. When he retired, she obtained the drops from a local pharmacist who refilled the medicine from the retired doctor's original prescriptions.

Over this period, the eye became "dim" and then lost all sight. When examined in the office, the eye was blind, the cornea was cloudy and opaque and heavily vascularized. There was extensive band keratopathy and several thin areas in the cornea. The patient was advised to stop using the Dorsacaine after explaining that although it temporarily relieved the pain, it had severely damaged her eye and the cornea was in danger of perforation.

DISCUSSION

The patient with pain from superficial corneal pathology is often in severe pain due to the exquisite sensitivity of corneal epithelium. These patients might typically have corneal abrasions, external retained foreign bodies, recurrent corneal erosions, contact lens over-wear or actinic keratitis due to welding flash burns or sunlamps. The instantaneous and dramatic relief afforded by the use of ocular topical anesthesia will often cause the patient to request, even demand, the prescription of these drops. The most widely used drops in this category are Tetracaine, Dorsacaine, Ophthaine and Ophthetic.

The physician who succumbs to these pressures out of either a misguided sense of his patient's best welfare and comfort or in ignorance of the potential for serious damage does his patient a great disservice.

Topical ocular anesthetics retard and inhibit the healing of superficial corneal wounds. Their acute and chronic use cause a severe keratitis and even opacification and scarring of the corneal stroma. Acute reaction may cause an allergic dermato-conjunctivitis. While the mechanism of this is not precisely known, it may be due to disruption of epithelial cell cytoskeletal proteins. In addition, an immunologic or hypersensitivity mechanism may further account for this damage.[1]

Appropriate use of the drugs would be confined to superficial anesthesia to facilitate examination and manipulation of the eye, such as removal of a foreign body. The sole indication for prescribing these drugs should be limited to ophthalmologists who teach their glaucoma patients to do home tonometry. Even then, very careful patient education must be done and problems with patient abuse may occur. In spite of these simple guidelines, known for many years, complications continue to be reported. Indeed, a high percentage of those suffering serious damage are physicians and paramedical personnel.[2] This seems to be attributed to the easy accessibility of these medications in this population, ignorance of potential side effects and self-medication and treatment.

Appropriate treatment of ocular pain in the aforementioned conditions might include removal of the offending external foreign body, proper patching of the eye and prescribing conventional analgesia and sleeping pills. Unless the pain and problem resolves within the first 24 hours, ophthalmological consultation and follow-up should be obtained.

Morgan in this medical journal in 1978[3] stated that there is almost no indication for non-ophthalmologists to prescribe steroid-containing eye drops. I agree with his recommendations and conclusions and would add to that list a second group of eye drops — topical ophthalmic anesthetics.

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Ureteral Obstruction

(Continued from page 190)

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A symposium on "Diet and Exercise: Synergism in Health Maintenance" will be held on November 3-4 in Lake Buena Vista, Fla. (Walt Disney World Complex).

The Symposium will be sponsored by the Department of Foods and Nutrition, American Medical Association, in conjunction with the AMA's Council on Scientific Affairs and Council on Continuing Physician Education, and the Florida Medical Association. It will focus on the role of nutrition *and* exercise in the promotion of health and the treatment of major health problems. Emphasis will be on the physiologic effects of moderate habitual activity coupled with sound nutrition practices, i.e., the role of nutrition and exercise in health maintenance and in the treatment of some of our chronic degenerative disease states.

For further information, contact: Department of Foods and Nutrition, American Medical Association, 535 N. Dearborn St., Chicago, IL 60610.

A. THOMAS PEZZELLA, M.D., BRUCE E. BROWN, M.D.
JOSEPH T. WALLS, M.D. *and* JACK J. CURTIS, M.D., *Columbia*

Esophageal Obstruction Secondary to a Tortuous Thoracic Aortic Aneurysm

Case Report

The authors report a case that represents another unusual cause of dysphagia. They emphasize that since the majority of patients are elderly, treatment should be individualized to the need and condition of the patient and operative intervention must be planned to afford the greatest benefit with the least operative risk and morbidity.

The authors are from the Department of Surgery, Division of Cardiothoracic Surgery, University of Missouri Medical Center.

Dysphagia is a symptom usually referable to primary diseases of the esophagus. Infrequent causes include congenital vascular anomalies, extrinsic compression from locally invasive bronchogenic carcinoma and obstruction from fibrosing mediastinitis, infections or idiopathic etiology.[1]

This case represents another unusual cause of extrinsic compression of the esophagus with subsequent dysphagia.

Case Report

An 84-year-old white woman was admitted to the Cardiothoracic Surgical Service at the University of Missouri Medical Center with progressive dysphagia. She was unable to ingest solid foods or totally swallow her oral secretions. She had lost 6 kg during the month prior to admission.

Physical examination revealed an alert, cachectic, white, elderly woman in no acute distress. Vital signs were normal at admission. Eyes, ears, nose and throat examination results were normal for her age. There were no cervical masses or bruits. The trachea was in the midline. Fine rales were heard in the right lower lung fields. Examination of the heart revealed a regular rhythm with distant heart tones and no gallop. No murmurs were heard. Distal peripheral pulses were all present and equal. The abdomen revealed no abnormalities. Skin, genitourinary, musculoskeletal, lymphatic and neurological examination results were all unremarkable.

Admission laboratory data revealed an hematocrit value of 38% with a normal white blood count. Urinalysis, blood chemistries and coagulation profile were within normal limits. The rapid plasma reagin (RPR) was nonreactive. The electrocardiogram showed a sinus tachycardia with occasional premature ventricular contractions and an incomplete right bundle branch block.

A barium esophagram revealed a posterior extrinsic compression of the mid-esophagus (Fig. 1) which was thought to be secondary to a mid-thoracic tortuous descending aortic aneurysm. This was confirmed on subsequent thoracic aortography (Fig. 2).

Because of the patient's progressive disability and cachectic condition, operative intervention was advised. Despite an increased operative risk, a direct approach to relieve the esophageal obstruction by resecting the thoracic aortic aneurysm was considered the best solution to her problem.

One week prior to operation, under fluoroscopic guidance, a mercury tipped small feeding tube was inserted through the nasopharynx into the stomach. High calorie enteral feedings were well tolerated. Resection of a thoracic aortic aneurysm was then per-

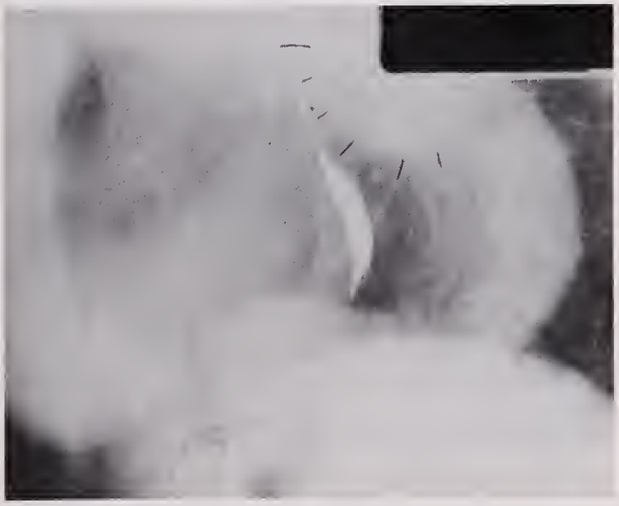

Fig. 1 Barium esophagram shows posterior compression of the mid-esophagus.

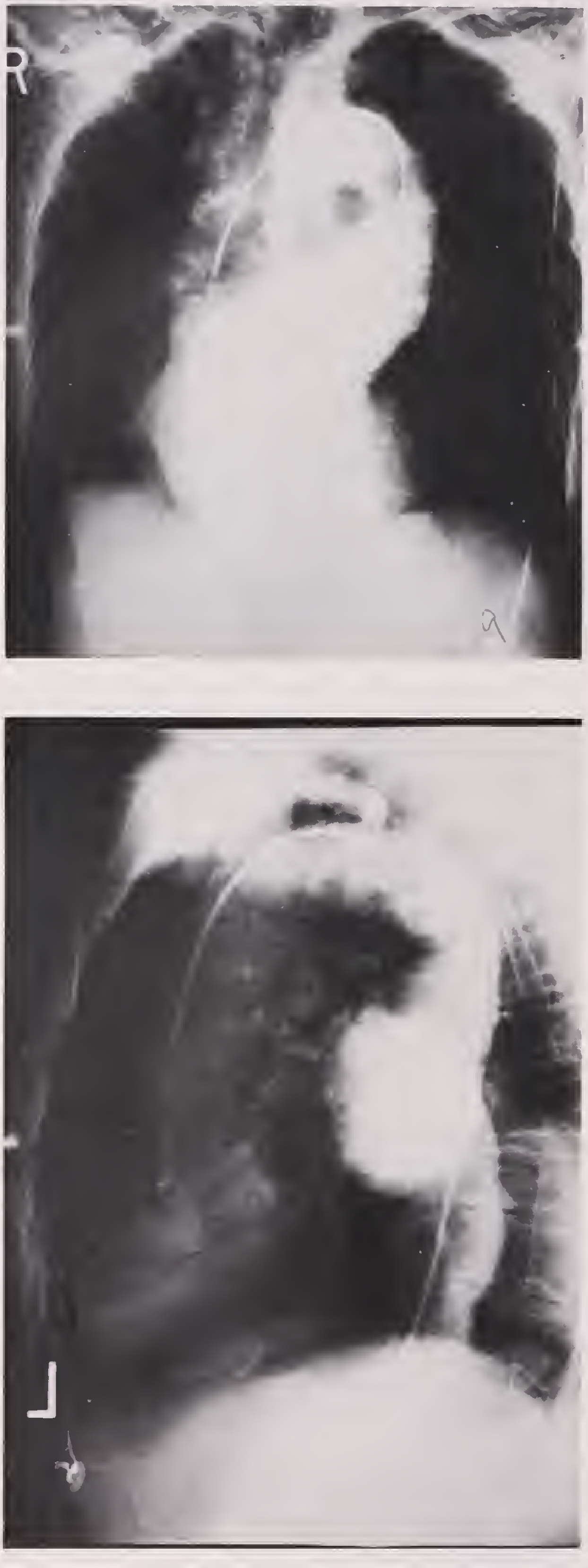

Fig. 2 (Top) PA aortogram shows mid-thoracic aneurysm crossing transversely into the right hemithorax. (Bottom) Lateral view shows aneurysm projecting anteriorly at the mid-thoracic level.

formed through a fifth intercostal space posterolateral left thoracotomy. Operative findings revealed a severely compressed mid-thoracic esophagus adherent to the anterolateral wall of a large fusiform descending thoracic aortic aneurysm. The aneurysm began approximately 10 cm distal to the left subclavian artery. It was elongated and crossed the spine transversely into the right hemithorax and returned near the midline at the level of the diaphragm.

A temporary heparin-bonded Gott shunt was inserted from the aortic arch to the left common femoral artery to provide intraoperative systemic perfusion distal to the cross-clamped thoracic aorta. The descending thoracic aortic aneurysm was resected and a pre-clotted 30 mm knitted dacron graft was interposed in an end-to-end anastomosis. Intraoperative dilatation of the esophagus was accomplished with a perorally introduced 44 French mercury weighted Maloney dilator.

The patient tolerated the procedure well without major complications. A subsequent postoperative esophagram showed resolution of the obstructed esophageal segment (Fig. 3). Follow-up examination at three months revealed a 2.5 kg weight gain and toleration of soft foods.

Discussion

LeRoux lists thoracic aortic aneurysms as the cause of dysphagia in only three of 1,200 patients reviewed over a ten year period.[1] In patients with documented aneurysms of the descending tho-

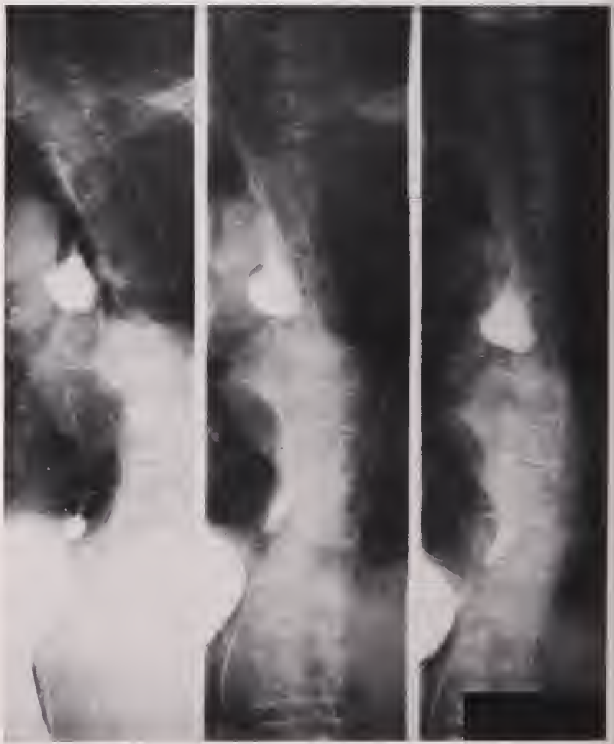

Fig. 3 Postoperative esophagram with relief of obstruction.

racic aorta, however, dysphagia is a recognized symptom in up to 20% of patients.[2]

It is presumed that the tortuosity of the enlarged thoracic aorta causes compression of the lower two thirds of the esophagus. The mechanism of this compression is from the tortuous aorta posteriorly and the posterior wall of the left atrium or left ventricle anteriorly.[3] This is well illustrated in Fig. 1.

In 1954, MacKlow and Smith reported the association of lower esophageal obstruction secondary to a tortuous distal thoracic aorta.[4] Again, in 1955, Keats and Magidson reported a case of dysphagia and a tortuous posterior aorta.[5] McMillan and Hyde in 1969, confirmed this entity and showed proof of esophageal compression at the time of operative repair.[6] It was also stressed by Conte in 1966 that the infrequency of dysphagia is a consequence of the mobility of the esophagus and the tremendous degree of esophageal narrowing tolerated before the onset of symptoms.[7]

Once the problem is confirmed with barium swallow and thoracic aortography, treatment should be individualized to the need and condition of the patient. Since the majority of patients are elderly, operative intervention must be planned to afford the greatest benefit with the least operative risk and morbidity.

McMillan and Hyde stressed moving the esophagus forward and laterally, thus bringing the esophagus away from the area of obstruction.[6] Conte used a simple procedure of enlarging the esophageal hiatus in a case in which the obstruction occurred from the aortic aneurysm compressing the esophagus anteriorly against the muscular sling of the hiatus.[7]

In 1971, Lambert devised a newer concept to correct this uncommon problem.[8] Through a left thoracotomy, the esophagus is mobilized anteriorly from the obstructing posterior tortuous aorta. A sling of parietal pleura from the left chest wall is then fashioned as a support for the esophagus as it lies between the aorta behind and the left ventricle medially and in front.

Direct repair of the aneurysm itself may increase the long-term survival of the patient on the theory that, untreated, the aneurysm itself may expand and rupture either into the esophagus or chest space.[2, 3] This remains the treatment of choice in most patients.

However, decision to resect a thoracic aneurysm obstrucing the esophagus in such high-risk patients as reported here warrants certain considerations. It is technically a greater operation than those described above with higher morbidity and mortality. Exposure may be difficult. The distal tortuous aorta may be difficult to mobilize as it crosses and descends into the right hemithorax. Extreme care must be used in mobilizing the esophagus from the adherent aneurysmal wall. In fact, this maneuver should be done only after proximal and distal control of the aorta is accomplished. External shunting between the aorta and femoral artery with a temporary heparin bonded shunt is recommended.

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JAMES A. NEVIACKAS, M.D. *and*
JOHN H. BAUER, M.D., *Columbia*

Emphysematous Pyelonephritis

A Report of Two Cases

INFECTIONS IN DIABETICS are varied, may be severe and may involve virtually every organ system.[1] The cause of increased susceptibility to infection is unknown but may include poor tissue perfusion and/or high serum glucose concentrations which make the environment conducive to bacterial growth.[2]

Pylonephritis is an uncommon, but serious, complication of diabetes. Emphysematous pyelonephritis, even more rare, is characterized by gas in the renal parenchyma and frequently leads to nephrectomy and/or death.[2] We present the histories of two patients with emphysematous pyelonephritis. Both occurred in diabetic patients; one with a single kidney and the other on chronic hemodialysis. These patients were successfully diagnosed and treated.

CASE REPORTS

Case #1 A 44-year-old white woman was diagnosed as having diabetes mellitus eight years prior to admission. Subsequently, she experienced recurrent episodes of pyelonephritis which resulted in a nephrectomy on the left side six years prior to admission. One month prior to admission, the patient noted the onset of malaise and abdominal pain on the right side associated with nausea and vomiting. One week prior to admission, she noted chills and dysuria. Three days prior to admission, she became lethargic and was taken to her local hospital. She had a serum glucose concentration of 1,000 mg/dl and no urine upon bladder catheterization. She was transferred to the University of Missouri Medical Center.

The authors present the histories of two patients with emphysematous pylonephritis. E. Coli and pseudomonas were isolated.

The first patient was an insulin-dependent diabetic and was referred for acute renal failure. The second patient was a diet-controlled diabetic with an extensive history of renal stones and chronic pyelonephritis. He was referred for treatment of end-stage renal disease. Both patients were successfully diagnosed and treated.

The authors are from the Medical Service and Research Service, Harry S. Truman Memorial Veterans Hospital and the Department of Medicine, University of Missouri Medical Center. This work was supported in part by the Medical Research Service of the Veterans Administration

Admission physical examination revealed a rectal temperature of 39C, lethargy, right costo-vertebral angle tenderness, and a palpable mass in the right-upper quadrant. Serum glucose value was 266 mg/dl, and serum creatinine was 10.2 mg/dl. White blood cell count (WBC) was 18,200 with a left shift. Abdominal x-rays showed air in the right renal parenchyma and a pneumourogram (Fig. 1). Urine cultures grew E. coli. Retrograde cystoscopy was performed and showed uretro-pelvic junction obstruction secondary to necrotic tissue. A ureteral catheter was left in place and there was an immediate postobstructive diuresis of 30 ml/min.

The patient was treated for two weeks with parenteral ampicillin. This caused prompt defervescence. Initially, renal function was inadequate with a serum creatinine level of 10 mg/dl and a serum urea nitrogen value of 156 mg/dl. She required a single hemodialysis for control of uremic symptoms. Following hemodialysis, her serum creatinine and urea nitrogen decreased and, after ten days, she was stabilized at concentrations of 2.5 mg/dl and 37 mg/dl respectively. Repeat abdominal films showed no gas. She has remained asymptomatic with stable renal function.

Case #2 A 56-year-old white man was seen at the University of Missouri Medical Center seven years prior to admission for evaluation of pyelonephritis. An intravenous pyelogram showed ectatic changes and thinning of both renal cortices consistent with pyelonephritis. It also demonstrated a right renal stone. A urine culture grew pseudomonas. A right ureterolithotomy was done. Antibiotic therapy resulted in urine sterilization. Twenty-four hour urine creatinine clearance was 32 ml/min.

Three months later, he was again evaluated for pyuria and found to have a left renal stone. He declined operation and was lost to medical follow-up for a seven-year period. He reportedly did well until three months prior to admission when he noted intermittent dependent edema. Oral furosemide was given with some improvement. Ten days prior to admission, he

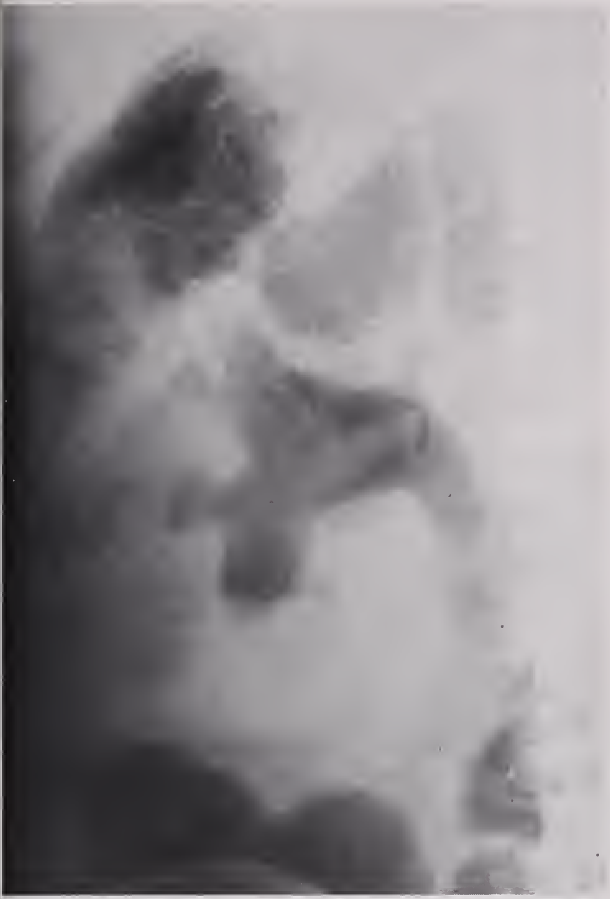

Fig. 1 Flat plate of the abdomen from Case #1 showing gas within the right renal parenchyma *(upper portion)* and a complete air contrast outline of the renal pelvis *(middle)*.

noted dyspnea and increased abdominal girth. He was admitted to his local hospital. His serum creatinine was then found to be 12.1 mg/dl; serum urea nitrogen, 162 mg/dl, serum calcium, 5.4 mg/dl, and serum phosphate, 10.4 mg/dl. He was transferred to the University Medical Center for evaluation and treatment.

Other medical history revealed he had been a borderline diabetic treated with diet alone.

Physical examination showed signs of congestive heart failure with a third heart sound and dependent edema. Results of an abdominal examination were normal. Laboratory data showed a white blood cell (WBC) count of 4,600 with 73% segmental forms and 2% band forms. Urinalysis showed 3+ proteinuria, red blood cells and white blood cells too numerous to count. Urine culture grew pseudomonas. Abdominal tomograms for kidney size demonstrated numerous pockets of gas in the left renal parenchyma (Fig. 2).

Hemodialysis was begun without incident. He received a four-week course of gentamicin. Gas remained in the kidney. Therefore, a simple left nephrectomy was done. The kidney was found to be shrunken, scarred and with many walled-off abscesses. There was almost no functioning renal parenchyma. The patient has continued to receive hemodialysis without problems.

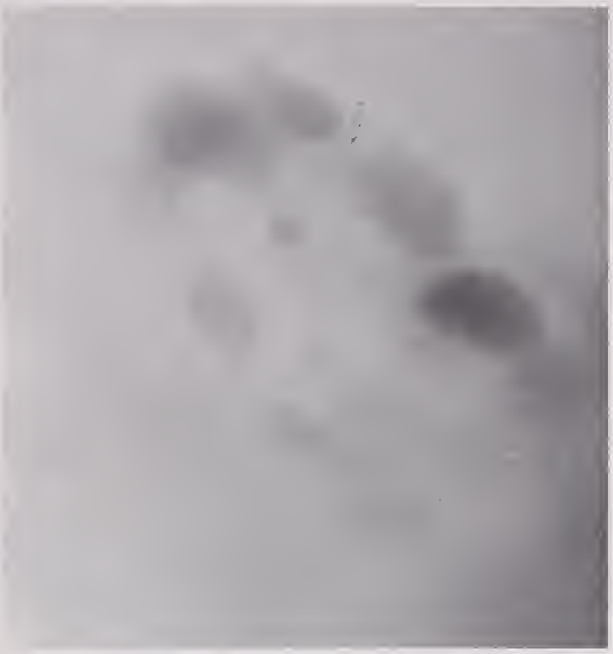

Fig. 2 Nephrotomogram of the left kidney from Case #2 showing several distinct collections of air in the renal parenchyma.

Discussion

Emphysematous pyelonephritis is a rare complication of urinary tract infection. Air within the urinary system can be localized around or within the renal parenchuma or collecting system (pelvis, ureter or bladder). Parenchymal gas alone is strictly referred to as emphysematous pyelonephritis, whereas gas in the collecting system is referred to as either emphysematous pyelitis, ureteritis, or cystitis, depending on its anatomical location.[3] The localization of gas may aid in the differential diagnosis.[4]

Perforating trauma with or without infection can deposit air in any one of these locations. Perforation of a viscus with communication to the urinary tract caused by diverticular disease, neoplasia or inflammatory bowel disease can also deposit air in any of these locations. Obstruction of the urinary tract by neoplasia, stone or capillary necrosis, and concomitant infection, usually limits the air to the upper collecting system or renal parenchyma.

In infections associated with an illness such as diabetes mellitus, air deposits are usually found in the renal parenchma. If capillary necrosis and sloughing of tissue occurs, resulting in obstruction as in Case #1, then gas may also be seen in the upper collecting system. Perforation due to iatrogenic causes, most commonly due to instrumentation during cystoscopy, will deposit air in the collecting system. Finally, air contained in other visci may be confused with the urinary tract, as in gaseous cholecystitis or pneumatosis cystoides intestinalis.

The most common infecting organism causing emphysematous pyelonephritis is E. coli.[5] Clostridial infections have not been reported. The postulated mechanism for high incidence of emphysematous pyelonephritis in patients with diabetes mellitus is that high plasma tissue glucose concentration enables the organisms to ferment the sugar to CO_2 and H_2.

Diagnostically, any patient, particularly a diabetic, being treated for a urinary infection who is not responding to antibiotic therapy, who develops progressive renal failure, or has a palpable abdominal mass with or without flank crepitance may have this disorder. Such patients should have an abdominal x-ray to assess the presence of air in the renal parenchyma or collecting system.[6]

Once air is discovered, a vigorous search for obstruction should be performed and drainage instituted. Initial antibiotic therapy should be broad spectrum until urine culture results are known. Supportive measures, including dialysis, may be necessary because of renal failure. Finally, a deteriorating course may necessitate surgical resection of the abscessed tissue. Prognostically, the outlook is poor with a mortality as great as 70%.[4] Surgical resection of the infected tissue may offer a better prognosis, as only a 30% mortality was experienced in one series.[7] If the infection is bilateral and the patient is doing poorly, it may be necessary to do bilateral nephrectomy and begin hemodialysis.

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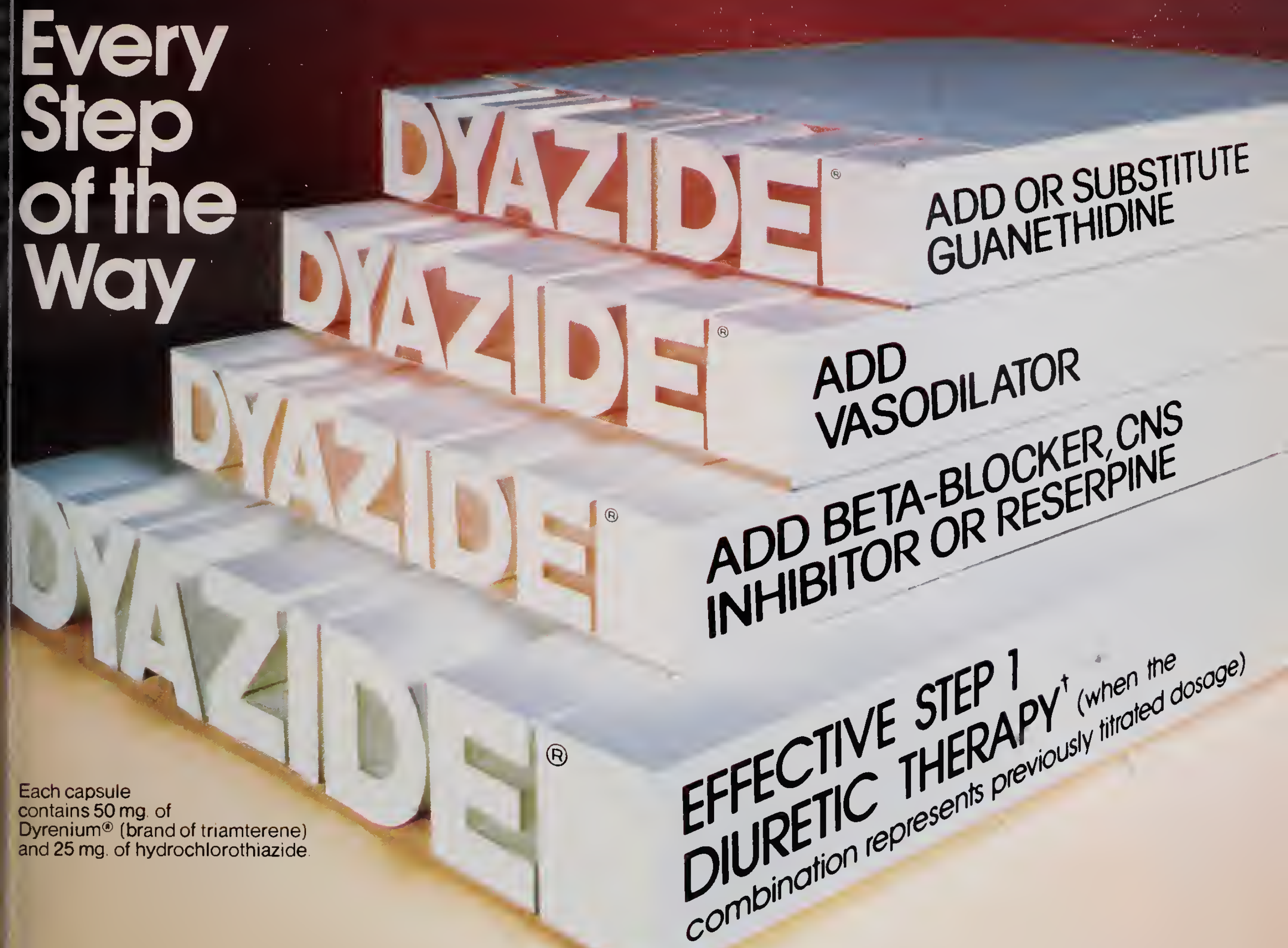
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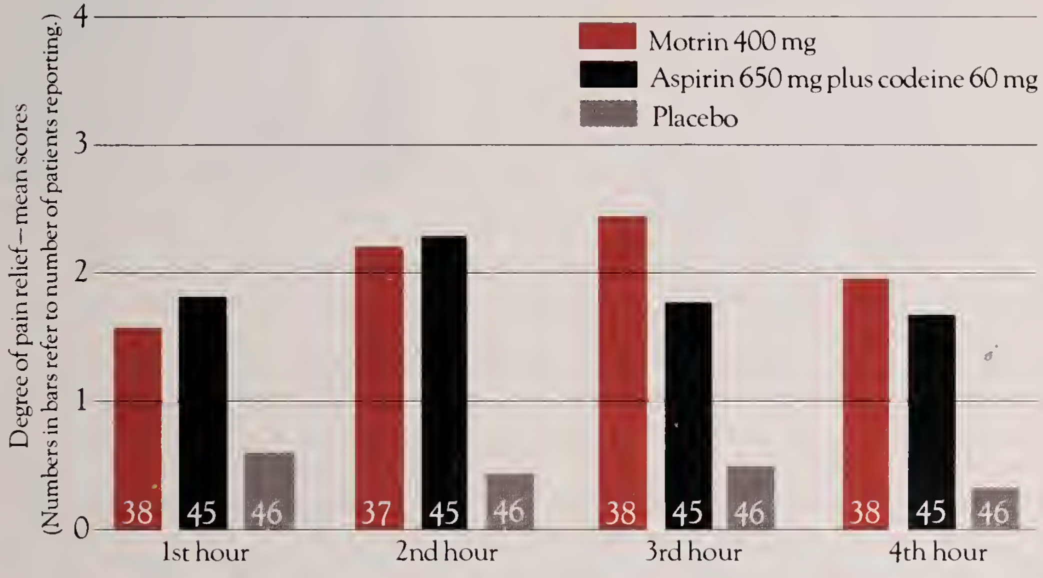

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In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

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Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

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Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

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President's Message

"Do Not Take Your Work Home With You"

How often has each of us heard this phrase and acknowledged it as reasonable advice for someone, but really not for us? With a bit more study and a little reworking, the phrase demonstrates ramifications which can focus their direction more directly upon each of us at various times and in varied situations. Say we change the phrase as follows: "Do not use your professional rules to evaluate and judge activities not particular to your profession."

Richard V. Bradley, M.D.

A judge officiates with autonomy in the court room. He or she would engender considerable risk to officiate over his or her family life in like manner. The sports umpire or referee requires autonomy at work, but left there along with the whistle which could well end up within the anatomy in a non-game situation. Motion picture directors leave home each morning meek and humble. During the working day, of necessity, their absolute rule changes them to raving tyrants who must deflate and regress to humble and meek while they are being driven home, for their own safety. Corporate executives can carry their dominance over to after-work professional advancement but not past the front door of home without facing real risk.

Supervision, at work, requires varied levels of autonomy. These requirements are not as necessary away from work. The wisdom that enables the supervisor to exercise authority can be put to use in a more understanding way. Having the wisdom to change roles away from our profession or occupation is one of the keys to true happiness. Being a sounding board to one's spouse without the inevitable fast answer and "sage" advice can reap golden rewards of warmth and love. To listen respectfully to the worries and complaints of our children, and to remember how real and large those worries may have been to us when we didn't know the meaning of the word trivial or have any concept of what things would mean in the long run, is a true mark of wisdom. Having the wisdom to be a participant rather than an umpire or referee or judge in a family argument is a truly human quality.

With particular respect to physicians and their professional — away from professional — attitudes is particularly notable. Physicians train and practice with the direction, the conception, even the belief that there should be an ultimate truth or at least a definite right and a definite wrong when dealing with the prevention and cure of disease. Taking a step further, physicians try to be proficient in the use of time and resources during the delivery of medical care. They train to observe signs and listen to symptoms and are required to provide judgment and counsel for a given problem. In medicine, this is both correct and desirable.

When the physician steps from the physician role to another, it is time to be fair about the methods used to make use of the powers of attention and response keyed to the situation at hand. Where the physician is trained and tuned to right and wrong, the legal system is trained to advocacy. Where the delivery of medical care strives for speed and efficiency tempered with great quantities of the application of compassion and pain relief, other areas of life may suffer when speed and efficiency are placed foremost. Where physicians have to agree on uniform medical matters, they should be considerate in allowing normal attitudes of difference in matters political, in matters of religion, in matters of any personal choice, granted so eloquently by our founding fathers.

The tendency of the extreme-oriented physicians to be intolerant of all others is easily observed by fellow physicians and detracts from the otherwise meritorious qualities of that extreme person. At times, such an attitude literally prevents the

(Continued on page 209)

MSMA Auxiliary

A Year of Accomplishments

Our annual convention is always an exciting time on the auxiliary calendar. As each county auxiliary reports on its activities, it is obvious that much has been accomplished. The doubts and frustrations which accompany the low points of the year melt away when the successes are shared.

As president of the MSMA Auxiliary, I have visited many county auxiliaries to see first-hand the work they are doing. Some highlights of their projects were the health fair for school children in Jasper County, widespread CPR classes in Cape Girardeau County, support of and leadership for the hospice program in Greene County, the Shape-Up-For-Life program with aerobics classes in Buchanan County, four teams of drivers for Meals on Wheels once a month in Cole County, the bake sale for AMA-ERF/MSMF in Grand River Counties, volunteers who do blood pressure and health screening weekly at Shepherd's Center for the elderly in Jackson county, the bazaar in cooperation with the hospital auxiliary in Pettis County, and support for the St. Louis Metropolitan Art Museum by the St. Louis Metropolitan Auxiliary.

Mrs. Donald A. Fakhoury
President

My term of office has been greatly enhanced by the cooperation and help of the MSMA officers and staff. I have appreciated the invitation to attend the MSMA Council meetings and report on auxiliary activities. My special thanks go to Jean Duensing in the MSMA office for all her help with the *Missouri Auxiligram* and to Royal Cooper for his help and assistance for our Legislation Day in Jefferson City.

The new MSMAA president is Mrs. Jerry Meyer (Jan) from Concordia. I know the auxiliary will make great progress in the months ahead under her enthusiastic and capable leadership.

EDITORIAL

QUALITY — PERHAPS ELITISM

It may seem extremely simplistic to repeat that which has become commonplace in our daily press. However, I feel compelled as an educator to dwell for a moment on an issue which I view as a major challenge to the health profession.

I speak of the recent publicized concern for an impending physician surplus. Though some of my colleagues are not yet convinced that a problem exists, most recent graduates of medical school and, in particular, those with very specialized training, are only too aware of the reality of the situation. It is no longer possible for individuals, even if they have proper credentials, to freely or easily choose the setting in which they wish to practice. A large number of graduates are finding metropolitan areas, and some rural areas, saturated with physicians performing similar services and vying for a limited patient population. To compound the matter, competing physicians, some of whom may be very underqualified for the services they render, are not the only variables in the equation. There is a large body of additional service groups such as physician's assistants, nurse practitioners, doctors of osteopathy, pharmacists and physical therapists who also function in the medical market place and wish to establish their presence or carve their niche.

To those who are skeptical, these realities are apparent if one communicates with recent graduates or individuals leaving large large academic institutions wishing to establish their practices. The publicity and recent statistics come as no surprise.

My concern resides in the fact that professional medical educators seem to be reluctant to address the situation head on or, at least, appear mute. At risk of engaging in a lengthy moral discourse, might I suggest that we need to put aside self-serving motives and concern ourselves with overriding philosophical directives. Money is a central issue and certainly is a major concern in all university and educational endeavors. At risk of being trite, I also realize that necessity fosters invention.

I wonder, however, if we are justified in doling out medical students to small community hospitals where the structure of their education may be less ideal than at institutions where there are more full-time faculty or faculty devoted to addressing their educational needs. Yes, a few token students to a community hospital gives that hospital prestige and the mother medical school some financial remuneration. But is the quality of the educational experience satisfactory — or should the student paying $10,000 a year have to settle for "satisfactory"?

Why not consider reducing the size of our medical school classes and the number of small residency training programs that are inadequately staffed and poorly funded? Should we not attempt to attract excellent clinicians and their practices to our universities? Why shouldn't there be an effort to relegate tertiary services to tertiary centers where properly credentialed individuals can function in a milieu which offers good quality control? These are not easy questions. Finances and the livelihood of educators and some practitioners asked to make these decisions are at stake. (I believe that the emphasis needs to be on quality, not quantity.)

In my opinion, the size of the medical school classes needs to be reduced. Sub-specialty fellowship training and training in certain specialties needs to be curtailed and individuals performing said functions but who are not qualified, need to be exposed. At the very least, it should be incumbent upon every training program director to realize the investment the applicant is making in terms of money and time to obtain his goal. Society is also making an investment and, with current reimbursement methods, society will be asked to shoulder some of the financial burden reflected in the practice habits of our medical graduates. Society, as well as the individual, needs to be assured of a quality physician capable of administering quality care.

The perceived problem of a "physician shortage" in certain areas may well be a matter of maldistribution rather than surplus. However, one must also be pragmatic and realize that the maldistribution problem, as it currently exists, is not likely to be solved by a swelling of the ranks and prayerful spill-over of personnel into less desirable segments of the country.

Medicine has historically been viewed as a profession which has contributed to the development of civilization and the betterment of mankind. Its legacy is rich and speaks of an almost apostolic succession of great teachers, investigators and practitioners. Members of the medical profession have generally been held in high esteem.

I fear, however, that we are now entering a period of time when we are less concerned with the nobility of the profession and its humanitarian goals. Rather, our desire to pursue the mass production of stereotypic individuals is creating an atmosphere in which the major concerns are economic rather than scientific or humanitarian. I believe that it is not too late to reassert our emphasis on quality rather than quantity. Perhaps even a touch of elitism would be helpful. As T. H. Huxley so aptly stated, "There may be wisdom in a multitude of counselors, but it is only in one or two of them."[1]

RONALD N. RINER, M.D., Chairman
Department of Internal Medicine
Saint Mary's Health Center
St. Louis

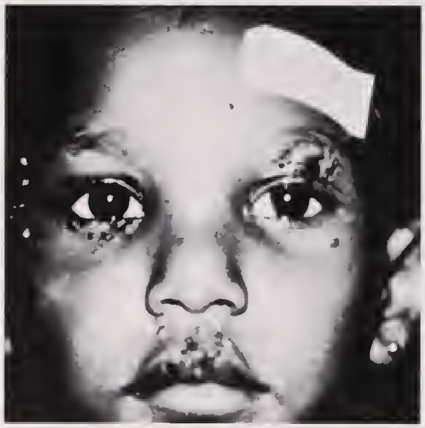
Reference

1. Garrison, F. H. in *Contributions to the History of Medicine*, Hafner Publishing Company, Inc., New York, 1966, p. 895.

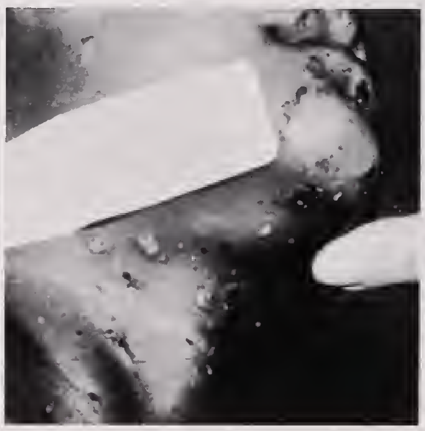
DRAMATIC NEW CLINICAL PROOF*

In the treatment of impetigo–

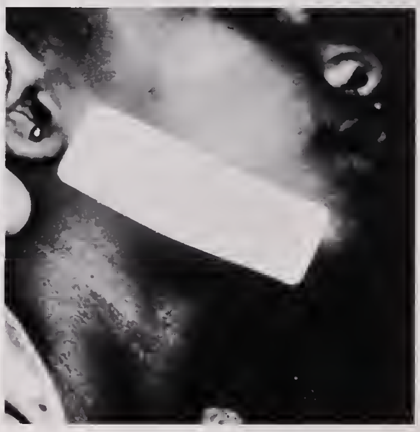
- **100% cure rate with Tegopen®(cloxacillin sodium)**
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus and *Streptococcus pyogenes*	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q 6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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Division of Bristol-Myers Company
Syracuse, New York 13201

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

THE COMMITMENT TO SECURING more clout for medicine in HHS was listed as the AMA's number one priority by President Robert B. Hunter, M.D. at the National Leadership Conference. He told the 862 participants that the Association is prepared to offer the Reagan Administration a "rational, realistic program of national health care goals and initiatives." The AMA will ask institutions such as medical schools and hospitals to join it in seeking a greater role in government policy making processes, Dr. Hunter said. He urged medical societies to seek the same kind of reemphasis on health in government at state and local levels. Both Otis Bowen, M.D. retired governor of Indiana, and Richard S. Hodes, M.D., majority leader of the Florida House of Representatives, stressed the need for a more powerful voice for medicine in state governments. Noting that many programs may be reduced by federal budget cutting, Dr. Bowen said, "If we physicians have input, we can advise on how overlapping and duplication can be reduced and spending curtailed without lowering quality."

HEALTH CARE IMPROVED IN 94% of the jails in the AMA Correctional Program, and 39 jails improved enough to receive AMA accreditation, according to a program evaluation report. The evaluation covers 221 jails in 19 states participating in a one-year program funded by state medical societies and the Law Enforcement Assistance Administration. The AMA assisted state medical societies in working with jail personnel to identify and correct problems. Progress was measured by the number of AMA standards complied with.

FIRST-PLACE WINNERS of the 1980 AMA National Awards for Medical Speakers are Theodore J. Castele, M.D., Cleveland Academy of Medicine, for Television News Show; Richard F. Corlin, M.D. Los Angeles County Medical Association, for Television Talk Show; Louis Gertsley III, M.D., Philadelphia County Medical Association, for Radio News/Talk Show; Roger Hamstra, M.D., Colorado Medical Society, for the Physician as TV or Radio Host; Earl Thayer, Wisconsin Medical Society, for Public Audience; Edward R. Annis, M.D., Dade County (Fla.) Medical Association, for Professional Audience; and Douglas B. Bell II, M.D., Hawaii Medical Association, for Testimony. There were 200 entries in the seven categories.

WE HAVE "LONG ADVOCATED an exemption for PSROs under the Freedom of Information Act and have written draft legislation to provide for such an exemption," the AMA told the Institute of Medicine in comments on the Institute study of PSRO disclosure policy. The study has been undertaken at the request of two Congressional subcommittees concerned with the implications raised by the lawsuit pending between Ralph Nader's Public Citizen Health Research Group and the National Capital Medical Foundation, the PSRO for Washington, D.C. The Nader group wants access to the PSRO records under the FOI Act. Citing a recently enacted public law, which significantly limits disclosure of Veterans Administration documents by Health Services Review Organizations, the AMA called for the same protection under PSRO policy. The AMA submitted nine guidelines for PSRO confidentiality and urged the Institute to recommend to Congress exemption of PSROs from the FOI Act.

THIRTY-NINE PERCENT OF ALL U.S. PHYSICIANS were in primary care in 1979, according to the 17th edition of the AMA's *Physician Distribution and Medical Licensure in the U.S.* (DOP 1979). This statistical monograph gives the geographic and specialty distribution of all U.S. physicians. The physician supply data is broken down to specifics on foreign medical graduates and women physicians. Cost is $17 each for 1-10 copies; $15.30 for 11-49; $13.60 for 50 copies or more; and $21.25 for foreign orders. Write AMA Order Department, OP-300, P.O. Box 821, Monroe, Wis. 53566. Orders must be prepaid.

Peter Godfrey Danis, M.D.

This article was provided by Sister Felicia McGalloway, S.S.M., who served as administrator of Cardinal Glennon Hospital from 1956 to 1961.

Dr. Danis

Dr. Peter G. Danis is a legend at Cardinal Glennon Memorial Hospital for Children. It is in no small part due to his drive and foresight that this children's hospital exists at all.

Dr. Danis was born in Ottawa, Canada in 1909. He was orphaned at an early age and soon migrated to the United States where he was reared by an aunt and uncle in Spokane, Wash. After graduation from Gonzaga University, he received his M.D. degree from St. Louis University School of Medicine.

In 1931, in response to a need for a teaching facility for medical and nursing students, the Sisters of St. Mary converted a part of one floor of St. Mary's Hospital into a 40-bed pediatric unit. This unit was ready for occupancy on Jan. 1, 1932. Dr. Danis was serving a rotating internship at that time and he was the first intern in the new department. His unique manner with children won them over. He was able to administer unpleasant treatments with comparative ease. Even after he left the service, he was frequently called back to assist with a child who was difficult to handle or to find a vein others had missed.

Somewhat later in his residency, Dr. Danis received an offer from Dr. W. M. Marriott at Washington University to take a residency with Dr. Alexis F. Hartman in research. This was a golden opportunity to advance rapidly in the field of pediatrics. However, Firmin Desloge Hospital had recently opened a pediatric clinic and the number of patients had increased rapidly.

Because of what he considered to be a providential opportunity to be of service to poor children, he declined the offer from St. Louis Children's Hospital and remained at the growing pediatric section of Firmin Desloge. He was instrumental in organizing the clinics and in coordinating them with the special departments of the hospital.

In the clinics of Desloge he became personally involved in Catholic Charities with Monsignor Butler and became their medical director, except for title and salary.

Early in his association with Catholic Charities, Archbishop John Glennon became interested in Dr. Danis. The Archbishop said, "Young man, there must be a purpose for your being in St. Louis. Do you know what it is?"

The answer was a complete surprise. "Yes, your Excellency, I am going to build a Catholic children's hospital."

The Archbishop smiled broadly and said, "When I retire, I will come over and talk to the children."

Some time later, the Archbishop was out riding with Ray McCarty. Ray mentioned that by a kind act of providence, he had a surplus and wondered how best to use it. "Give it to that young pediatrician Danis. He says he is going to build a children's hospital."

After the death of Cardinal Glennon in 1946, the children's hospital loomed up on the horizon bright and clear. What more fitting memorial to the late Prelate, lover of children, than a children's hospital in his honor. Now, Dr. Danis felt that he had not been dreaming the impossible dream and his own enthusiasm increased as he

(Continued on page 209)

The Need for "PR Thinking" in Your Medical Practice

By
Leif C. Beck, LL.B.,C.P.B.C.
Vasilios J. Kalogredis, J.D., C.P.B.C.
Geoffrey T. Anders, J.D., C.P.A.
Dorothy R. Sweeney

Impending Economic Crunch

Physicians are by their nature not particularly interested in the rather disdained fields of marketing, advertising and "public relations." They decided on their lives of work for reasons tied to technical interest and service to others, and these reasons are somewhat incompatible with the thought of "selling." In fact, as we have pressed some of our medical clients to more affirmatively market their practices, the responses have often been blank stares.

Well, the times are changing and it behooves physicians to change with them. Government studies and responsible articles follow one upon the other to demonstrate the increasing oversupply of physicians, expected to reach large numbers during this decade. The situation has in many specialties and areas already caused practice growth to fall off. Income increases appear these days to be limited mainly to fee changes as the number of patients seen stays level or diminishes.

Doctors with busy, successful practices just don't seem interested in these symptoms. Some of them essentially respond that they are so busy rendering high-quality care to so many patients that they have no time to worry; and the concern is put beneath their professional dignity. It is, however, convenient to place oneself "above" such economic concern so long as one is earning a high income, though that level of principle tends to bend as the economics changes.

We expect, however, that even presently successful practices will feel an economic "crunch" in the next five and ten years. Doctor advertising is beginning to appear and will increase dramatically. Newer practices will find ways to tell the community of favorable fee schedules, of willingness to participate in Blue Shield and accept Medicare assignments and even of expertise in special procedures. And specialists will concentrate heavy promotion of their characteristics to potential referring doctors, breaking down the reliability of presently comfortable, single-source referral lives.

Governmental and Institutional Competition

Even before the predictions of doctor oversupply, there were some ominous warnings. Back in 1974, we wrote an article entitled "Facing Medicine's Gravest Problem,"[1] which included the following:

> "Interestingly enough, very few physicians make any correlation between poor public relations and the ominous trend of the government to intervene in private medicine. When the possibility of such a relationship is suggested, most doctors express firm disbelief and attribute legislation of medical care to the persistent efforts of a few professional liberals. While such an element obviously exists and has had considerable influence in Congress, the simple truth of the matter is that most members of Congress voted for these measures because their constituents wanted them. While this may be a difficult concept to accept — and I know that many cynics will describe it as naive — I would venture to guess that a public referendum on National Health Insurance at this time would find overwhelming public support for the program with, perhaps, a large footnote condemning the professions for the many well-publicized abuses which have appeared in the press.
>
> You may disagree with this conclusion; yet it seems inevitable to me that government intervention in medicine will directly and accurately reflect the state of discontent between doctor and patient."

The real solution to the governmental threat is

(Continued on page 207)

The authors, who retain full copyright authority, are principal consultants of Management Consulting for Professionals, Inc., Bala Cynwyd, Pa.

Friend
or foe?

When exposure to rabies is suspected, Hyperab® Rabies Immune Globulin (Human) is the product of choice. **Hyperab® is recommende by the U.S. Public Health Service and the America College of Surgeons.**

Antirabies serum of equin origin produces serum sickness in approximately 40% of adults and 15% of children Anaphylactic shock may occur.

Hyperab,® the only rabies immune globulin of human origin virtually eliminates these hazards. No serious sid effects have been reported with its use.

Hyperab® is readily available in convenient dosage form. To order, contact an authorized Cutter Biological dealer or Cutter distribution center.

Hyperab

Rabies Immune
Globulin(Huma

Cutter Biologica

Division of Cutter Laboratories, Inc.
Berkeley, California 94710

See next page for brief summary of prescribing information.

Hyperab®
RABIES IMMUNE GLOBULIN (HUMAN)

DESCRIPTION

Rabies Immune Globulin (Human)—Hyperab® is a sterile solution of antirabies gamma globulin (IgG) concentrated by cold alcohol fractionation from plasma of donors hyperimmunized with rabies vaccine Hyperab® globulin is a 16 5% ± 1 5 solution of gamma globulin from venous blood in 0 3M glycine, preserved with 1 10,000 Thimerosal (a mercury derivative) Its pH is adjusted with sodium carbonate The product is standardized against USA Standard Antirabies Serum The USA unit of potency is equivalent to the International Unit (IU) for rabies antibody

This product is prepared from human venous plasma Each individual unit of plasma has been found nonreactive for hepatitis B surface antigen using the radioimmunoassay method of counter-electrophoresis

INDICATIONS

Treatment of rabies, once clinical disease becomes apparent, is rarely if ever successful. Rabies vaccine (duck-embryo origin, Lilly Laboratories) with or without Rabies Immune Globulin (Human)—Hyperab® should, therefore be given to all persons suspected of exposure to rabies, particularly to severe exposure Whenever possible Hyperab® globulin should be injected as promptly as possible after exposure If initiation of treatment is delayed for any reason, however, Rabies Immune Globulin (Human) should be given just the same, regardless of the interval between exposure and treatment.

Rabies virus is usually transmitted by the bite of a rabid animal, but can occasionally penetrate abraded skin with the saliva of infected animals Progress of the virus after exposure is believed to follow a neural pathway, and the time between exposure and clinical rabies is a function of the proximity of the bite (or abrasion) to the central nervous system and the dose of virus injected The incubation is usually 2 to 6 weeks, but can be longer. After severe bites about the head and neck it may be as short as 10 days

After initiation of the vaccine series, it takes 2 weeks or longer for development of immunity to rabies Since most vaccine failures have occurred in cases of severe exposure, the value of immediate immunization with preformed rabies antibody cannot be over-emphasized

Recommendations for use of passive and/or active immunization after exposure to an animal suspected of having rabies were detailed by WHO, and by the US Public Health Service Advisory Committee on Immunization Practices (ACIP).

INJECTION PROCEDURE

A portion of the Hyperab® globulin dose should be used to infiltrate the wound The rest is injected intramuscularly

CONTRAINDICATIONS

Rabies Immune Globulin (Human)—Hyperab® is contraindicated in repeated doses, once vaccine treatment has been initiated Repeating the dose may bring about interference with full expression of active immunity expected from the vaccine Hyperab® globulin is also contraindicated in individuals who are known to have an allergic response to gamma globulin or thimerosal

PRECAUTIONS

NEVER ADMINISTER Hyperab® globulin INTRAVENOUSLY

ADVERSE REACTIONS

Slight soreness at the site of injection, and slight temperature elevation, may be noted at times Sensitization to repeated injections of human globulin is extremely rare

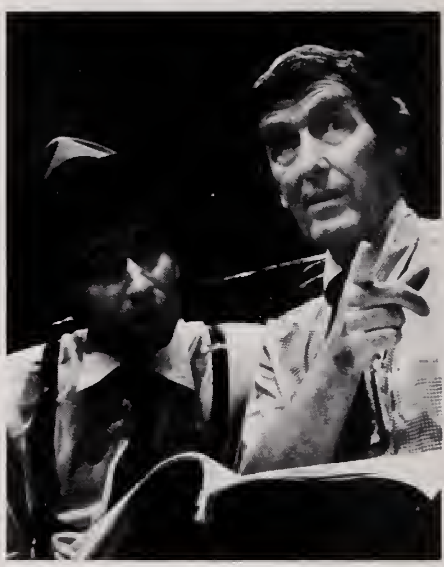
In the course of routine injections of a large number of persons with human gamma globulin, there have been a few isolated occurrences of angioneurotic edema, nephrotic syndrome, and anaphylactic shock after injection Because of their rarity, it is difficult to determine whether such reactions are incidental, or causally related to the gamma globulin

No instances of transmission of hepatitis B (homologous serum jaundice) have been reported from the use of human gamma globulin prepared by the fractionation methods employed by Cutter Laboratories, Inc

HOW SUPPLIED

Rabies Immune Globulin (Human)—Hyperab® is packaged in 2-ml and 10-ml vials with a potency of 150 International Units per ml (IU/ml) The 2-ml vial contains a total of 300 IU which is sufficient for a child weighing 15 kg (33 lb). The 10-ml vial contains a total of 1500 IU which is sufficient for an adult weighing 75 kg 165 lb)

WHY I'M A UNITED WAY VOLUNTEER



GREGORY FALLS

Home: Seattle, Washington
Career: Artistic Director
Age: 57
Married: Four children
Interests: Drama, writing, travel and volunteering for United Way

"Getting involved is more than signing a pledge card once a year. It means giving some time.

"Between my job and my family, I don't have much time to give. But I do know the hours I devote to United Way make a difference. A real difference.

"That's because United Way is an organization that works. It's made up of all kinds of people—volunteers—working hard and making tough decisions to meet the community's human care needs.

"More than anything, United Way takes me out of the make-believe world I work in, into the drama of human life.

"Volunteering for United Way is more than what I ask of myself, it's what I owe myself . . . and my community."

Thanks to you... it works... for ALL OF US

United Way

Ad Council

A Public Service of This Magazine & The Advertising Council

almost totally in the hands of the private doctor who deals with his patients on a person-to-person basis. He must convey to each patient that he is the most competent and most thoughtful available physician for him or her — that he satisfies the patient's need better than the government-supported HMO or the large multi-specialty clinic. *It matters not in this respect whether that doctor actually is "best," for the patient's selection will be based only on perceptions.*

So "marketing" and "public relations" are the essential ingredients in protecting the presently successful doctor against these other likely encroachments on his practice. The HMO is, in fact, gobbling up large numbers of patients otherwise treated by solo doctors and small groups. And the clinic-sized, multi-specialty groups are keeping patients who cease being referred to independent non-clinic specialists.

The HMOs employ experienced, well paid marketing experts; those people are key members of prepaid practices' executive staffs. Similarly, we expect other large medical groups to begin hiring public relations experts during this decade. The architectural, accounting and law professions are already seeing this phenomenon, and there is no reason to assume that medical groups will not follow the same path.

Unless the private practitioner needs these governmental and institutional inroads by having "satisfied customers," his practice will be chipped away. So, he will face competition both from the oversupply of small practices and from the growth of the big organizations.

We urge that the privately practicing physician anticipates the problems and starts now to protect his practice. It may be too late to begin thinking about "public relations" and "marketing" when his practice has already begun to sputter.

What Can The Doctor Do?

Doctors can begin meeting the described threats first by simply tuning their thought processes to the importance of "PR." They can still practice the highest quality medicine, but they must be critical about whether their patients *appreciate* the quality and the concern — the doctors must care that their well-treated patients are in fact "satisfied customers."

As to office practice, there is so much to consider. The physician must be sure to provide a comfortable office environment, both as to the physical facility and in having helpful, hospitable assistants. Employees who are unsympathetic or unfriendly may have to be weeded out.

Physicians must also recognize their patients' concern for promptness. It just isn't fair or considerate to keep patients waiting simply because the doctor overbooked his schedule, and when he is unavoidably late, he can at least give the courtesy of letting them know the compelling reasons for delay. Patients consider their time as valuable as the doctor's, so some "PR" can help them accept a long wait more sympathetically.

Billings, collection follow-up and insurance handling can be conducted so the patient will appreciate and understand an office's routines. Especially as so many doctors elect not to participate in Blue Shield or accept Medicare assignments, they must be sure their patients have been told and understand the process.

There are a variety of other public relations steps which some doctors are taking and which we expect to grow in the next few years. Here are a few of them.

Patient Information Booklets

Many physicians have drafted informative brochures describing their practices and their basic arrangements of importance to patients. Such "patient information booklets" are timesaving devices for a doctor's office, and one estimate suggests they will reduce incoming telephone calls by 20% to 30%. Just as importantly, however, the booklet can be a courtesy to the patient, attempting to reach out and communicate with him or her before misunderstandings might arise.

One very good use of the booklet is with new patients. They typically know little about the doctor(s) or the office and its policies, in which case some sort of advance indoctrination can help prevent problems. Consider, for example, a patient's surprise at an office's disproportionately high first office visit fee, at its policy for payment "over-the-counter" or at its nonparticipation in Blue Shield and/or refusal to take Medicare assignments.

We, therefore, suggest a routine of mailing the patient information booklet to each new patient as soon as the first office visit is scheduled. The receptionist needs merely to ask the patient's address as she makes the appointment and then promptly send out the booklet. A small preprinted card might be attached saying something like the following:

> "We look forward to meeting you at the appointment made for (date and time). For your information and review before your visit, the enclosed pamphlet describes our practice

and some of its policies. If you have any questions, please feel free to call us right away."

Some doctors complain that patient information booklets lose their effectiveness as patients misplace them or disregard them. We do not find that to be true enough to justify stopping distribution of the booklets. Furthermore, to the extent they are shown to patients' friends, the information pamphlets become low key advertising of one's practice.

Patient Newsletters

Physicians can take some advice from the dental profession. An increasing number of dentists now prepare and send quarterly newsletters to all their patients. These newsletters are usually written fairly casually by the doctors and their employees to report on matters of interest related to their practices. An underlying purpose, of course, is to remind the patients of the doctor's interest, to hold the patient's allegiance and generally to serve as good "PR."

Professionally, a newsletter can satisfy the growing emphasis on "prevention." A doctor can remind his patients of certain health matters for their benefit, particularly including any new information in his specialty that may be relevant. This is the age of prevention, and the newsletter may be one way a physician can help raise the level of his patients' health consciousness.

We predict that in the next five years there will be a rash of physicians' newsletters addressed to patients. Developing a well-planned, high quality publication now might help put you ahead of this likely trend in which the beneficiaries will be both your patients and your practice.

We have even heard of a physician who leaves a supply of his newsletters at the local drug and health food stores. While this may presently repel most of our readers as unprofessional, they will, nevertheless, find such market-ploys increasingly threatening to their practices over the next few years.

Patient Questionnaires

It is commonly recognized that a physician will be the last person to learn of patient complaints about his office, its level of courtesy, the business arrangements and the like. Patients fuming over long waits in a dingy reception room, for example, tend not to express their annoyance when they are finally examined by the doctor. Similarly, displeasure at an assistant's snippness or at the handling of one's Medicare form will only occasionally be directed personally at the doctor.

While this fact insulates the physician from any "feel" for his practice's patient relations, it is also annoying to his patients. They come to assume that either the doctor doesn't structure his practice to serve them thoughtfully or that he doesn't care or both.

Some offices, therefore, periodically prepare a brief questionnaire asking the patients to evaluate how they were handled. The form might be available at the reception desk for each patient to take with him or her upon leaving the office or it could be mailed out with each bill at month-end. It would ask a variety of questions about the waiting room, the various assistants' courtesy, the length of waiting time, the doctor's responsiveness in answering questions and the like.

Such a questionnaire should be drafted by the doctor(s) and the office manager as best suits that specific practice's concerns although assistance of an independent consultant/advisor can be helpful. The benefits of such a questionnaire, of course, will be several. First, it will help the doctor and his staff learn how they can improve their own level of responsiveness to patients; it will help them structure the practice more competitively.

Secondly, a questionnaire tells a physician's patients that he really does care how they are handled in their encounters with him, his physical office and his staff. Just the fact of asking (assuming he gives attention to the answers) will thus be a positive item in a doctor's effort to market his practice.

Drug Information Pamphlet

A good client of ours recently developed a special patient information pamphlet entitled "Drug Effects and Side-Effects." It is a simple preprinted folder, containing the title and the doctor's name, address and phone number on the cover. On one inside page is a brief description, in the doctor's own personalized words, telling why the booklet is being provided. And on the other inside page will be stapled the specific drug's description.

This doctor has drafted his own separate discussion of each drug he commonly prescribes. Each description is separately preprinted so the page for whichever drug he prescribed can be stapled into the folder and handed to the patient.

The patient response has been favorable. From a medical standpoint, the pamphlet has helped this physician assure that his patients are well informed as to their prescribed drugs — a form of risk control. And from a "PR" standpoint, his patients have another indication that he really cares about their treatment and their information. He, thus, comes off better on this point than do the other doctors in his specialty who do not give this "something extra."

Practice Development Advisors

We were surprised to learn recently that a company has been started in Washington, D.C. to specifically counsel medical practices on building their patient loads. They would study the doctor and his office to help him market his services more effectively, presumably including emphasis on the doctor's own personality, communication skills and the like. While we are not presently acquainted with this new company or its principals (a physician and a management consultant), we see its presence as one more example of the times.

Conclusion

Private medical practice, as most of our clients know, is at a crisis point. Between the continuing supply of more potentially competing physicians and the expansion of HMOs and large clinics, the pressures on successful practitioners will grow during this decade. Practices that are now oblivious to these pressures may well find their patient bases become threatened and, perhaps, even begin to shrink.

These pressures will accelerate medical practices' interest in and use of marketing concepts — of "PR." Doctors who presently disdain such thought as being below their professional quality may well find themselves forced by economics to change their thinking or else their practices will be chipped away by others who are more open-minded.

The time to deal with change is before it is too late. We believe our readers and clients should stay ahead of the trend, developing real public relations/marketing thought now. We hope the described examples of such emphasis will be helpful, and we expect to see many more examples over the next few years.

Reference

1. Facing Medicine's Gravest Problem," by Leif C. Beck, *Pennsylvania Medicine*, June, 1974, p. 32, which quoted extensively from an article by Thomas P. Zirkle.

Peter Godfrey Danis, M.D.

(Continued from page 205)

shared it with others. But this was no small venture and so it was to take a few years for its accomplishment.

Today, as we walk through the corridors of Cardinal Glennon Memorial Hospital for Children with its 190 beds, we observe that the entire decor is in complete accordance with children's tastes. There is the busy Ambulatory Care Center with its 42 clinics, each special department complete with the most modern equipment and staffed with specialized personnel. There is the inpatient division which provides every comfort for the sick child as well as expert nursing care with tender, loving care. And, there is the children's Chapel, a chapel all their own.

During the upcoming year, 1981, two very important anniversaries will be observed. Twenty-five years ago on July 6, 1956, the first patients were admitted to the newly completed Cardinal Glennon Memorial Hospital for Children. Fifty years ago, 1931, Peter Godfrey Danis was awarded his M.D. degree. A double cause for celebration because of the dream of that little orphan boy from Ottawa, Canada.

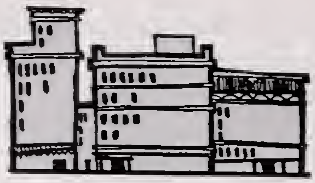
Also, the Cardinal Glennon Memorial Hospital has established the Peter G. Danis Annual Lectureship. The initial lecture was presented on April 22.

President's Message

(Continued from page 199)

profession from being able to utilize the good works of the afflicted individual for that one reason alone.

For those who are capable of the ability to exercise control, provide supervision, and stand in judgment, provide diagnosis and arbitrate, the additional quality of wisdom, which permits them to leave the autocracy at work and to carry the powers of understanding and compassion away with them, is indeed fortunate and desirable.



NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

Persons suffering from advanced cancer of the parotid gland may benefit from a new surgical procedure developed by *William H. Friedman*, M.D., F.A.C.S., chairman, Department of Otolaryngology and *George P. Katsantonis*, M.D., assistant chemical professor of otolaryngology.

"Stylohamular Dissection — A New Method for EnBloc Resection of Malignancies of the Infratemporal Fossa," a paper describing this surgery, was presented at a meeting of the Triological Society in Oklahoma City by Dr. Katsantonis, assistant clinical professor of otolaryngology.

Dr. Katsantonis stressed the importance of this method of infratemporal fossa resection by explaining that the procedure has proved life-saving in seven out of eight terminal cases.

The paper and surgical procedure represent the contributions of *Margaret H. Cooper*, Ph.D., and *Jong M. Lee*. M.D., all of the School of Medicine.

Donald L. Kaminski, M.D., professor of surgery, was awarded a two-year, $165,956 grant from the National Institute of Arthritis Metabolism and Digestive Diseases. He will study the role of prostaglandins in the biliary tract. Dr. Kaminski has identified large amounts of prostaglandins in bile and gall bladder tissue and will seek to determine their role in gall bladder disorders such as inflammation produced by gallstones.

Vincent A. Chiappinelli, Ph.D., assistant professor of pharmacology, received a $6,500 grant from the Pharmaceutical Manufacturers' Association to study nerve cells using a snake toxin. Dr. Chiappinelli will use purified snake toxin to examine the biochemistry of receptors in nerve cells from the ciliary ganglion of the chick. The information obtained will increase the understanding of mechanisms by which nerve cells communicate with each other, a fundamental process involved in brain function.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Armando R. Favazza, professor in the Department of Psychiatry, recently served as Visiting Professor at the Albert Einstein College of Medicine in New York and at Saint Louis University Medical School.

An expert in social and cultural psychiatry, Dr. Favazza lectured on "Contemporary Christian Healing of Mental Illness" at both institutions. He also consulted with faculty and residents at both schools on issues relating to his special area of expertise and research.

Dr. Favazza has presented numerous papers at national and international meetings on effects on cultural and social influences on mental health. In addition, he is the author of a book, several book chapters and many articles in this area and is editor of the Department's award-winning scientific periodical, the *Journal of Operational Psychiatry*, which is widely recognized for its exploration of the interface of anthropology, sociology, public health and psychiatry.

Corinne Farrell, M.D., professor of radiology and bioengineering, has been elected vice-president and a member of the executive board of the American Thermographic Society. Another recent honor is her election to the Board of Trustees, Central Washington University Foundation, Ellensburg, Wash.

Dr. Farrell spent a recent sabbatical leave as a visiting professor at the universitites in Turku, Tampere and Helsinki in Finland, at the University of Freiberg in West Germany and the University of London in England.

WASHINGTON UNIVERSITY

Burton Sobel, M.D., chief in the Division of Cardiology, will receive the Heart Research Foundation's International Recognition Award at the association's annual meeting on May 7 in New York City. This is the second year the award has been presented. Dr. Sobel was selected to receive the award because of his contributions to cardiac biochemistry and the metabolic aspects of nuclear cardiology.

In addition to being a division chief at the School of Medicine, he is also a professor in the Department of Medicine and a staff physician at Barnes Hospital.

Dr. Sobel received his medical training at Harvard Medical School and was graduated from there magna cum laude in 1962. Following this, he interned and served his residency at the Peter Bent Brigham Hospital in Boston. From 1967 to 1968, he was a clinical associate, National Heart and Lung Institute (Cardiology Branch) of the National Institutes of Health. He spent the next six years with the University of California at San Diego School of Medicine in the school's cardiac care and myocardial infarction research units. In 1973, he joined Washington University School of Medicine.

Sobel is a member of the American Society for Clinical Investigation, a Fellow of the American College of Cardiology and the American Heart Association Council on Clinical Cardiology.

In a new program established by the Henry J. Kaiser Family Foundation of Menlo Park, Calif. to develop leaders in academic general internal medicine, the Foundation has seleted *Kenneth M. Ludmerer*, M.D., as one of the first six recipients of five-year, $50,000-per-year grants. He is assistant professor of medicine in the Department of Medicine at the School of Medicine and assistant professor of history on the Faculty of Arts and Sciences.

Dr. Ludmerer was selected from nominees of major medical schools throughout the country who met the Foundation's criteria for commitment to scholarship with particular focus on general internal medicine.

Dr. Ludmerer received his M.D. degree at Johns Hopkins University in 1973 and served his internship and residencies from 1973 through 1976 at Barnes and Cochran Veterans Administration hospitals, which are affiliated with Washington University School of Medicine. He was chief resident in internal medicine at Barnes Hospital in 1978-1979. The School's Department of Medicine established a unique two-year fellowship for Dr. Ludmerer, enabling him to serve both as instructor of medicine at the School and research associate in the Department of The History of Science at Harvard University.

Ludmerer was appointed to his current positions in 1979.

Estelle Brodman, Ph.D., librarian and professor of the History of Medicine at the School of Medicine, has been named as the second recipient of the John Cotton Dana Award by the Special Libraries Association, an organization of specialized librarians and information specialists. The award is presented irregularly to a member of the association in recognition of his or her outstanding services to special librarianship. This year it is also a token of the high esteem in which Dr. Brodman has been held by her colleagues during her 45-year career. She is retiring this year and ending her 20-year career with Washingtion University. She will receive the award at the association's 72nd annual conference in Atlanta on June 17.

UNIVERSITY OF MISSOURI-KANSAS CITY

James J. Mongan, M.D., associate director for health and human resources on the domestic policy staff of the White House, assumes responsibility this month as executive vice-president of the Hospital Hill Health Services Corporation.

Before joining the White House domestic policy staff, Dr. Mongan was deputy assistant secretary for health policy and special assistant to the secretary for national health insurance. His earlier experience includes working as medical officer for the U.S. Public Health Service in Denver's regional office of the Department of Health and Human Services and seven years as professional staff member on the U.S. Senate Finance Committee.

A native of San Francisco, Dr. Mongan received both his A.B. and M.D. degrees from Stanford University.

John Jacobs, a senior medical student at UMKC, has been selected to present his paper, "Separation of Two Populations of Cells with Gamma-glutamyl Transpeptidase from Carcinogen-treated Rat Livers" at the medical student program of the annual meeting of the American College of Physicians in Kansas City. The program is specifically designed for medical students from the University of Missouri Schools of Medicine and the University of Kansas School of Medicine.

The School of Medicine's Office of Educational Resources has begun production of a second continuing medical education videotape for the American Medical Association's Video Clinic Series. The subject of the program is "Gastroenterology: Peptic Ulcer Disease."

Medical students Fred Harris, Bill Richie and Jerda Riley have received this year's George Hedgepeth Trust Fund awards. Mr. Harris and Ms. Riley were among last year's recipients also.

Dr. Hedgepeth donated more than $100,000 to the Kansas City Association of Trusts and Foundations with the stipulation that the accrued interest be used to help minority students with financial need go to medical or other health-related professional schools.

MSMA Members Receive Physician's Recognition Award

Fifty-six MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of February, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in MISSOURI MEDICINE as they are received from the AMA.

Melvin N. Abend, Kansas City
Angela Arroyo-Villanueva, Kansas City
Mohammad Asghar, St. Louis
Carl E. Aulenbacher, Washington
Hugh R. Bailey, Kansas City
John L. Barnard, Kansas City
Armindo G. Baula, St. Louis
Frank E. Baum, Kansas City
John F. Bergmann, St. Louis
Deo K. Bhati, Salem
Michael J. Bukestein, Hannibal
Hjalmar E. Carlson, Kansas City
Frederick C. Coller, Springfield
John B. Crane, Washington
M. Desmond Curran, Kansas City
Antoni M. Diehl, Kansas City
J. Larry Dowell, Strafford
Eugene H. Ebel, Florissant
Jack M. Estes, Florissant
Mark R. Feldman, St. Louis
Edduyn A. Figueroa, St. Louis
Robert E. Funsch, St. Louis
Norman A. Ginsberg, Kansas City
Charles R. Hall, Versailles
Godofredo M. Herzog, St. Louis
Jack H. Hill, Kansas City
Robijn K. Hornstra, Kansas City
George A. Johnson, Springfield
Joseph A. Kahn, Sikeston
Kenneth M. Kays, Moberly
Raymond M. Keltner, St. Louis
Fred R. Kennedy, Kansas City
Abdul R. Khan, Crestwood
Ireland W. Kimball, Parkville
George K. Landis, Kansas City
Virginia L. Larsen, St. Louis
Richard H. Loeb, Springfield
Maria M. Lyskowski, Cape Girardeau
Hisham S. Majzoub, Joplin
Ben Dee McCallister, Kansas City
Richard B. Michelson, Kansas City
Charles A. Molden, St. Louis
Delmar L. Parsons, Cape Girardeau
Earl L. Rapp, Hannibal
Charles T. Riley, Richmond
Thomas L. Schmidt, Kansas City
Eugene J. Schwartz, Springfield
Jack E. Shalley, Kansas City
Donald E. Sklenar, St. Joseph
J. Edward Slankard, Kansas City
Othello D. Smith, Kansas City
Lawrence B. Talbott, Kansas City
James W. Vaughn, Kansas City
Garry M. Vickar, Florissant
Edwin O. Wicks, Liberty
David G. Wood, Kansas City

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
***Contact:* Norman L. Martin, M.D., President**

May 20	Pediatric Urology (With Greater K.C. Urological Society, Granada Royale Hotel)

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

May 11	City-Wide Radiology Conference — Digital Imaging and Computers Radiology
June 13	Leroy Sante Lecture

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Nov. 13-15	Eighth Annnual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
May 8-9	Alumni Reunion
May 13	Burns: The Early Days
May 21-22	Postgraduate Course in Otolaryngology
Dec. 10-12	Current Concepts in Cancer Therapy

University of Missouri School of Medicine
Office of Continuing Education
M-240 Medical Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

May 8-10	4th Annual Missouri Cardiovascular Conference (Tan-Tar-A, Osage Beach)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

May 16	Nuclear Medicine for the Referring Physician
Aug. 5	Multisystem Trauma

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

St. Louis University Medical Center
1325 S. Grand, St. Louis 63104
(314) 664-9800, Ext. 127
***Contact:* John Grellner, Director, Continuing Education**

Apr. 21	Infertility in the 1980s
May 5	Grand Rounds in Medical Ethics (Co-sponsor — St. Louis Academy of Family Physicians)
May 13-14	Pediatrics and Adolescents: Maximizing Development

Freeman Hospital
1102 W. 32nd, Joplin 64801
(417) 623-2801, Ext. 310
***Contact:* Joy W. Barnett, CME Coordinator**

Apr. 24-26	Advanced Cardiac Life Support

St. Louis Regional Poison Center
Cardinal Glennon Memorial Hospital
1465 S. Grand Blvd., St. Louis 63104
(314) 772-5200
***Contact:* Kathryn Rost**

May 6	Third Annual Seminar on Poisoning

(Continued on next page)

In Memoriam

Milton A. Spitz, M.D., c/o Hilda Perry, 562 Buena Vista, Moss Beach, Calif. 94038, graduate of Washington University, 1938; member of St. Louis Metropolitan Medical Society; aged 68; died Nov. 19, 1980.

Harry L. Bremser, M.D., 6742 Plainview, St. Louis 63109, graduate of National University of Arts and Sciences Medical Department, 1914; member of St. Louis Metropolitan Medical Society; aged 95; died Dec. 26, 1980.

Roy V. Boedeker, M.D., 1035 Bellevue, St. Louis 63117, graduate of St. Louis University, 1935; member of St. Louis Metropolitan Medical Society; aged 72; died Dec. 26, 1980.

Anthony L. Ferro, M.D., 777 S. New Ballas Rd., Creve Coeur 63141, graduate of Facultad De Medicina De La Universidad De La Habana, 1949; member of St. Louis Metropolitan Medical Society; aged 57; died Jan. 25, 1981.

Raymond A. Mezera, M.D., 7345 Whitehaven Dr., St. Louis 63123, graduate of St. Louis University, 1939; member of St. Louis Metropolitan Medical Society; aged 66; died Feb. 18, 1981.

Dennis Burkley Elrod, M.D., 211 N. Sprigg, Cape Girardeau 63701, graduate of Washington University, 1931; member of Cape Girardeau County Area Medical Society; aged 73; died Feb. 16, 1981.

Helen Yeager Thomas, M.D., 503 Russell Blvd., Columbia 65201, graduate of Washington University, 1943; member of Boone County Medical Society; aged 61; died Feb. 16, 1981.

Kenneth A. Mangels, M.D., 1103 W. 36th Terr., Independence 64050, graduate of St. Louis University, 1945; member of Jackson County Medical Society; aged 63; died Feb. 21, 1981.

Carle S. Smith, M.D., 1223 S. Kentwood, Springfield 65804, graduate of University of Chicago, 1912; member of Greene County Medical Society; aged 90; died Feb. 24, 1981.

Coming Events *(Continued)*

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

April 24-25	The Long Weekend: Gastroenterology, Pulmonary Disease and Hematology (Hyatt Regency Hotel)
April 30	C.V.A. — Anatomical Correlation by CAT (Truman Medical Center)
May 8-9	Geriatrics Seminar (Alameda Plaza Hotel)
May 14-15	Surgical Problems: The Old and the New (Hyatt Regency Hotel)
May 28	CT Evaluation of Supratentorial Lesion (Truman Medical Center)
June 5-6	Symposium on Physical Fitness (Crown Center Hotel)
June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)

Missouri-Baptist Eye Foundation
621 S. New Ballas Rd., Suite 343
St. Louis 63141
***Contact:* Richard B. Oglesby, M.D.**

May 17	Twelfth Eye Seminar — Refractive Surgery

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The Missouri State Medical Foundation is classified by the Internal Revenue Service under 509(a)(3). Individuals may deduct up to 50% of their adjusted gross income for contributions made to the MSMF.

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Zaroxolyn®

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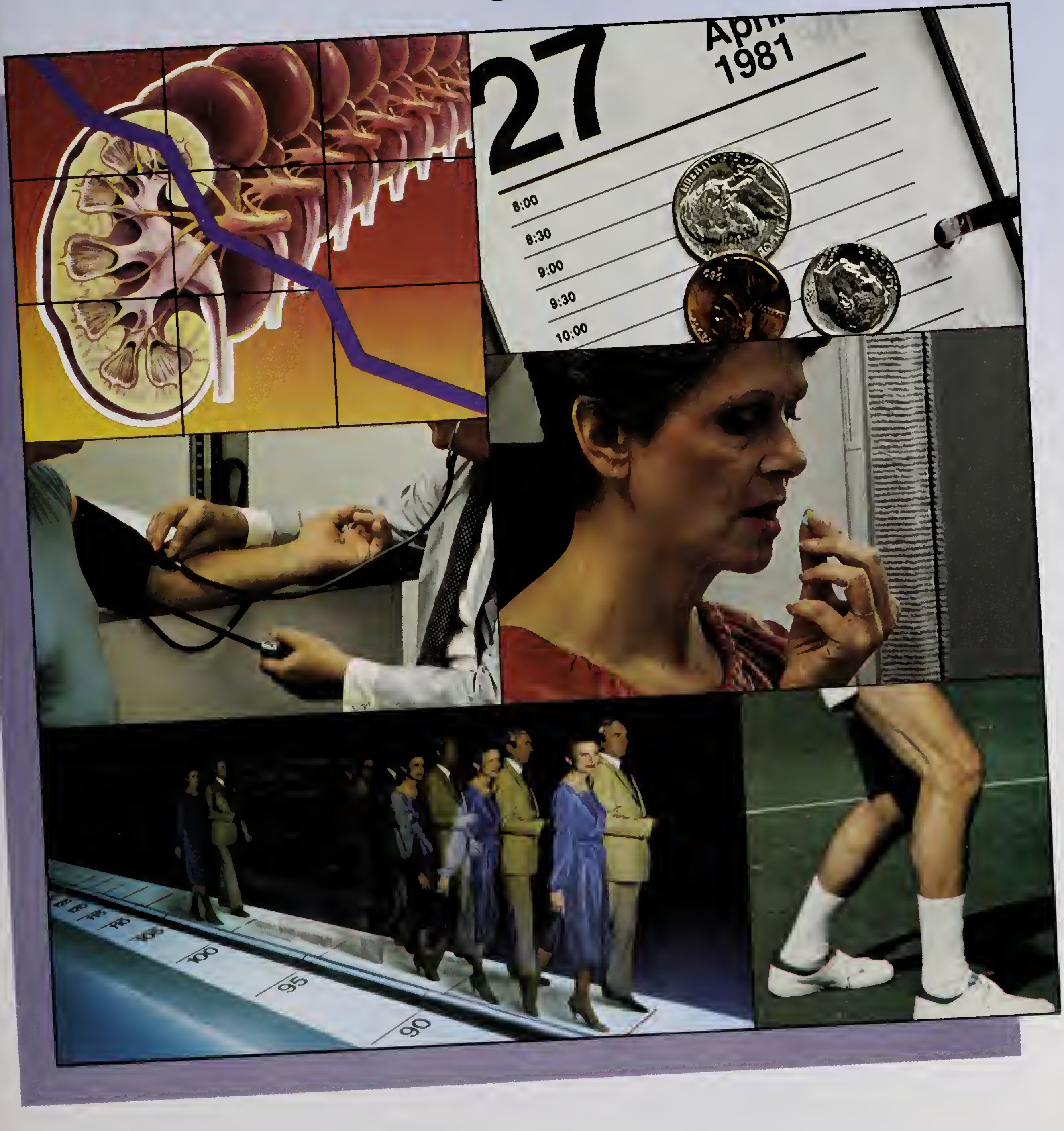
2½ mg, 5 mg, 10 mg tablets

The only Step-1 diuretic that can give you all of this...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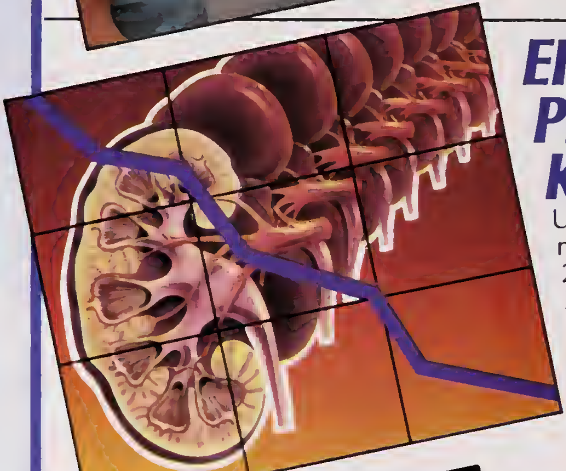
UNSURPASSED EFFECTIVENESS IN STEP-1 THERAPY

No other diuretic has proven superior in antihypertensive efficacy,[1-4] and in well-controlled studies[1,5-9] of patients with mild to moderate hypertension (dBP 90-110 mm Hg):

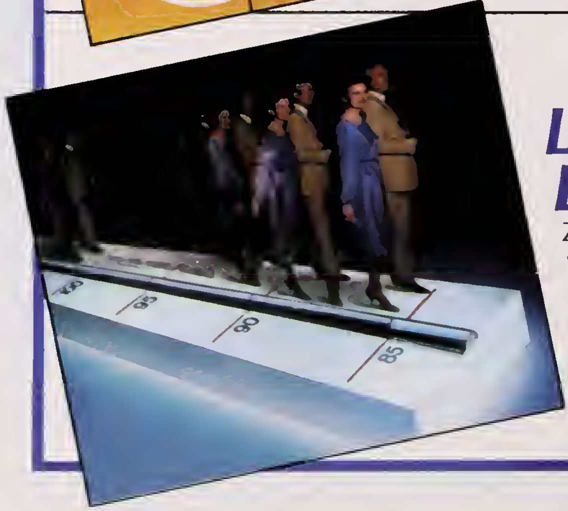
☐ 74% were normalized by Zaroxolyn *alone* (mean pretherapy dBP=102 mm Hg, mean posttherapy dBP=86 mm Hg)



EFFICACY IN THE PRESENCE OF REDUCED KIDNEY FUNCTION[10-14]

Unlike thiazides and chlorthalidone, Zaroxolyn may be effective in patients with GFR below 20 ml/min. And, unlike chlorthalidone, Zaroxolyn has a secondary effect in the proximal tubule.

Further, since kidney function decreases with age,[15] Zaroxolyn is a rational choice for patients past the age of 40.



LONG-TERM EFFICACY

Zaroxolyn maintains efficacy over long periods without the development of tolerance. In patients with average pretherapy dBP of 115 mm Hg who were followed for 4 years, posttherapy dBP remained at a low 85 mm Hg with Zaroxolyn *alone*.[1,7,8]

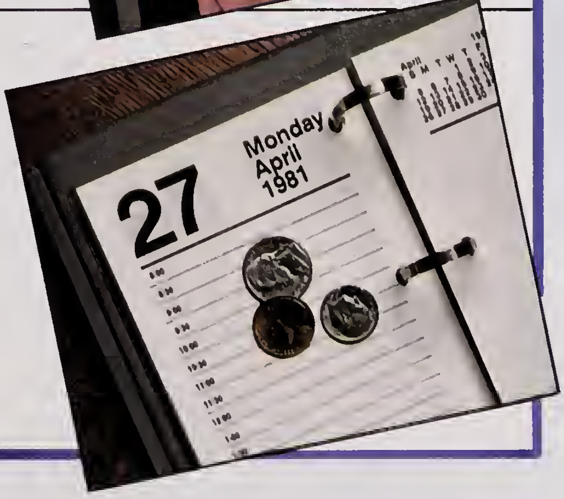
rovide all these benefits

AFETY

nically significant side effects are uncommon
th Zaroxolyn therapy[1,8] —usually no need for
+ supplementation.
And, because many patients are controlled
Zaroxolyn *alone,* they are spared the possi-
ity of Step-2 side effects.

COMPLIANCE

roxolyn has a 24-hour duration of action,
rmitting a single daily dosage.[1,8] Control is
ooth and sustained, with little nocturia or
ner interference with the patient's lifestyle.
ese factors enhance compliance,[14] giving
roxolyn a very low dropout rate (4% due to
le effects).[1]



CONOMY

roxolyn is among the least expensive
uretics available.[16] Zaroxolyn is a premium
oduct at an affordable price—a product with
stinct cost advantages.

ase see following page for prescribing information.

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Long-acting

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Gives you what you want for more of your hypertensive patients

- ☐ unsurpassed Step-1 effectiveness... maintained over the long run
- ☐ efficacy in the presence of reduced kidney function
- ☐ obviates the need for Step-2 drugs for many patients
- ☐ true once-daily dosage + minimal side effects = outstanding compliance
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Before prescribing, see complete prescribing information in the package insert, or in PDR, or available from your Pennwalt representative. The following is a brief summary **Indications:** Zaroxolyn (metolazone) is an antihypertensive diuretic indicated for the management of mild to moderate essential hypertension as sole therapeutic agent and in the more severe forms of hypertension in conjunction with other antihypertensive agents. Also, edema associated with heart failure and renal disease Routine use in pregnancy is inappropriate. **Contraindications:** Anuria, hepatic coma or precoma, allergy or hypersensitivity to Zaroxolyn. **Warnings:** In theory cross-allergy may occur in patients allergic to sulfonamide-derived drugs, thiazides or quinethazone Hypokalemia may occur, and is a particular hazard in digitalized patients; dangerous or fatal arrhythmias may occur Azotemia and hyperuricemia may be noted or precipitated Considerable potentiation may occur when given concurrently with furosemide When used concurrently with other antihypertensives, the dosage of the other agents should be reduced Use with potassium-sparing diuretics may cause potassium retention and hyperkalemia. Administration to women of childbearing age requires that potential benefits be weighed against possible hazards to the fetus. Zaroxolyn appears in the breast milk Not for pediatric use **Precautions:** Perform periodic examination of serum electrolytes, BUN, uric acid, and glucose. Observe patients for signs of fluid or electrolyte imbalance, namely hyponatremia, hypochloremic alkalosis and hypokalemia These determinations are particularly important when there is excessive vomiting or diarrhea, or when parenteral fluids are administered Patients treated with diuretics or corticosteroids are susceptible to potassium depletion Caution should be observed when administering to patients with gout or hyperuricemia or those with severely impaired renal function. Insulin requirements may be affected in diabetics. Hyperglycemia and glycosuria may occur in latent diabetes. Chloride deficit and hypochloremic alkalosis may occur. Orthostatic hypotension may occur. Dilutional hyponatremia may occur. Zaroxolyn 10 mg tablets contain FD&C Yellow No. 5 (tartrazine) which may cause allergic-type reactions (including bronchial asthma) in certain susceptible individuals. Although the overall incidence of FD&C Yellow No 5 (tartrazine) sensitivity in the general population is low, it is frequently seen in patients who also have aspirin sensitivity **Adverse Reactions:** Constipation, nausea, vomiting, anorexia, diarrhea, bloating, epigastric distress, intrahepatic cholestatic jaundice, hepatitis, syncope, dizziness, drowsiness, vertigo, headache, orthostatic hypotension, excessive volume depletion, hemoconcentration, venous thrombosis, palpitation, chest pain, leukopenia, urticaria, other skin rashes, dryness of mouth, hypokalemia, hyponatremia, hypochloremia, hypochloremic alkalosis, hyperuricemia, hyperglycemia, glycosuria, raised BUN or creatinine, fatigue, muscle cramps or spasm, weakness, restlessness, chills, and acute gouty attacks **Usual Initial Once-Daily Dosages:** mild to moderate essential hypertension—2½ to 5 mg; edema of cardiac failure—5 to 10 mg, edema of renal disease—5 to 20 mg Dosage adjustment is usually necessary during the course of therapy **How Supplied:** Tablets, 2½, 5 and 10 mg

References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245 3. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone *Clin Pharmacol Ther* 16:318-321, 1974 4 Pilewski RM, Scheib ET, Misage JR, et al Technique of controlled drug assay in hypertension V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 5 Van Hoose MC, Cutler RE: Antihypertensive efficacy of metolazone (Zaroxolyn®) alone and combined with reserpine in treatment of essential hypertension. *Current Therapeutic Research* 20:266-276, 1976. 6. Cangiano JL, Campos JA, Trevino A, et al: The effects of metolazone in the long-term treatment of essential hypertension. *Current Therapeutic Research* 16:778-785, 1974 7. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 8. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18 527-533, 1975. 9 Materson BJ, Oster JR, Perez-Stable EC: Antihypertensive effects of metolazone (Zaroxolyn). *Current Therapeutic Research* 16:890-896, 1974 10. Puschett JB Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977 11. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 12 Bennett WM, Porter GA Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973 13. Dargie HJ, Allison MEM, Kennedy AC, et al: Efficacy of metolazone in patients with renal edema. *Clin Nephrol* 2:157-160, 1974. 14. Anderson RJ, Hart GR, Lee OK Pitfalls in management of essential hypertension: Diuretic therapy Second in a series on antihypertensive drugs *Primary Cardiology* 5:63-75, 1979 15. Papper S: *Clinical Nephrology* Boston, Little Brown & Co. 1971, p 17. 16 *Drug Topics Red Book 1981*

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Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows:

"Possibly" effective: as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction; hypersensitivity to chlordiazepoxide HCl and/or clidinium Bromide.

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As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated; avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered: isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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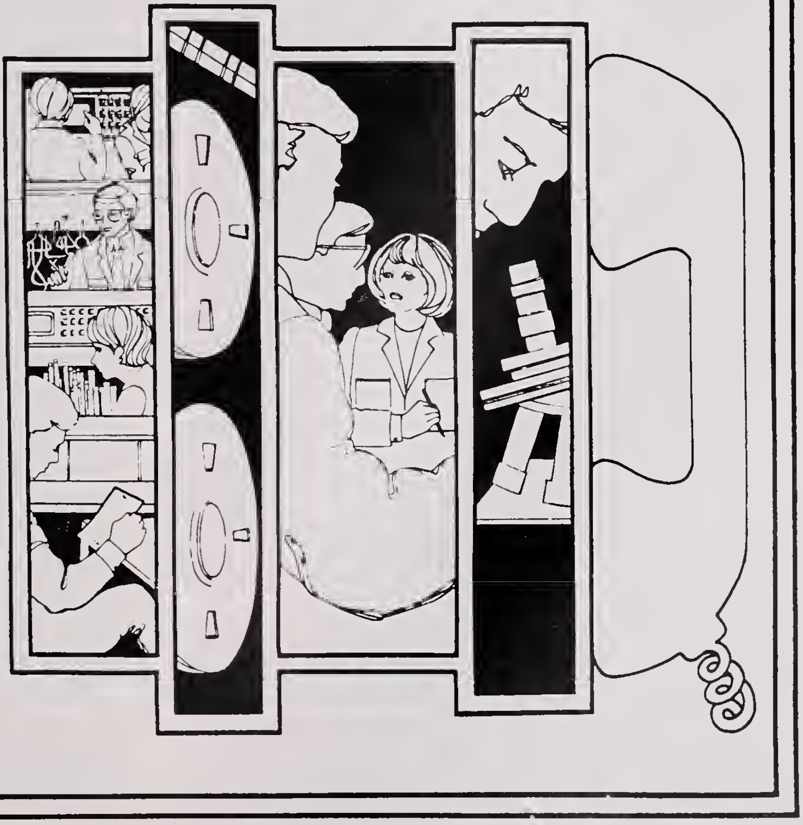

New Members

David M. Baker, M.D., 2953 S. National, Springfield 65804, has become a member of Greene County Medical Society. Dr. Baker is a native of Camden, N. J., received his preliminary education at Washington and Lee University and his M.D. degree at Temple University in 1963. He specializes in family practice.

Donald R. Bassman, M.D., 4960 Audubon, Room 115, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Bassman is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1975. He specializes in general surgery.

Mari Anne Butterfield, M.D., 2900 NE 60th, Gladstone 64118, has become a member of Clay County Medical Society. Dr. Butterfield is a native of Ft. Worth, Tex., received her preliminary education at the University of Tulsa and her M.D. degree at the University of Kansas in 1977. She specializes in anesthesiology.

Krishna K. Chunduri, M.D., 660 W. Euclid, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Chunduri is a native of India, received his preliminary education at Karnatak University and his M.D. degree at Karnatak University in 1975. He specializes in anesthesiology.

George K. Cyriac, M.D., 620 E. Monroe, Mexico 65265 has become a member of Audrain County Medical Society. Dr. Cyriac is a native of India, received his preliminary education at St. Aloysius College and his M.D. degree at Trivandrum College in 1972. He specializes in diagnostic radiology.

Adrian J. Delaney, Jr., D.O., 6400 Prospect, Suite 142, Kansas City 64132, has become a member of Jackson County Medical Society. Dr. Delaney is a native of Washington, D.C., received his preliminary education at George Washington University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1972. He specializes in anesthesiology.

Eduard Dvorak, M.D., P. P. Box 1268, Columbia 65205, has become a member of Boone County Medical Society. Dr. Dvorak is a native of Czechoslovakia, received his preliminary education at Charles University and his M.D. degree at Charles University in 1966. He specializes in radiology.

Victor H. Gerreira, M.D., Doctors Hospital Inc., 621 Pine Blvd., Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Ferreira is a native of Colombia, South America, received his preliminary education at National University of Colombia and his M.D. degree at National University of Colombia in 1966. He specializes in pathology.

John J. Garrett, M.D., 4570 Audubon St., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Garrett is a native of Utica, N. Y., received his preliminary education at Niagara University and his M.D. degree at Harvard University in 1951. He specializes in internal medicine.

Bruce D. Geller, M.D., 3601 W. 96th, Leawood, Kan. 66206, has become a member of Jackson County Medical Society. Dr. Geller is a native of Kansas City, received his preliminary education at Stanford University and his M.D. degree at the University of Kansas in 1980. He specializes in family practice.

Marc R. Hammerman, M.D., 660 S. Euclid Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Hammerman is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at Washington University in 1972. He specializes in internal medicine.

Ahmad Hooshmand, M.D., MEDDAC #1187, Ft. Leonard Wood 65473, has become a member of Mid-Missouri County Medical Society. Dr. Hooshmand is a native of Iran, received his preliminary education at Tehran Medical School and his M.D. degree at Tehran Medical School in 1967. He specializes in neurology.

Mary Margaret Kattakayam, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Kattakayam is a native of India, received her preliminary education at Kerala University and her M.D. degree at St. Louis University in 1969. She specializes in pediatrics.

Tae Soo Kim, M.D., Industrial Dr., Festus 63028, has become a member of Jefferson County Medical Society. Dr. Kim is a native of Korea received his preliminary education at Catholic

Iedical College and his M.D. degree at Catholic Iedical College in 1966. He specializes in gener- l surgery.

Vijaya Kumari, M.D., 708 Muirkirk Ln., Manhester 63011, has become a member of St. Louis Ietropolitan Medical Society. Dr. Kumari is a ative of India, received her preliminary education at Osmania University and her M.D. degree : Osmania University in 1971. She specializes in bstetrics and gynecology.

Chester I. Long, D.O., 1031 B. McIntosh, plin 64801, has become a member of Jasper ounty Medical Society. Dr. Long is a native of olorado Springs, Colo., received his preliminry education at Drury College and his D.O. egree at Kansas City College of Osteopathic Iedicine in 1974. He specializes in internal edicine.

Diane M. Magrane, M.D., 9721 Hastings, livette 63132, has become a member of St. ouis Metropolitan Medical Society. Dr. Magne is a native of Cedar Falls, Iowa, received her reliminary education at the University of Iowa nd her M.D. degree at the University of Iowa in 978. She specializes in obstetrics and gynecoloy.

Oommen P. Mathew, M.D., 4940 Wicham en Rd., St. Louis 63033, has become a member f St. Louis Metropolitan Medical Society. Dr. Iathew is a native of India, received his preminary education at St. Peter's College and his I.D. degree at Jipmer in 1973. He specializes in ediatrics.

Francis E. O'Donnell, M.D., Bethesda Eye istitute, 3655 Vista Ave., St. Louis 63110, has ecome a member of St. Louis Metropolitan Iedical Society. Dr. O'Donnell is a native of St. ouis, received his preliminary education at hns Hopkins University and his M.D. degree at hns Hoplins University in 1975. He specializes ophthalmology.

Madhavi A. Parekh, M.D., University of Iealth Sciences, 2105 Independence Blvd., Kans City 64124, has become a member of Jackson ounty Medical Society. Dr. Parekh is a native of ndia, received her preliminary education at Jai Iind College and her M.D. degree at the Uniersity of Bombay in 1971. She specializes in athology.

Robert J. Parker, M.D., 615 S. New Ballas d., St. Louis 63141, has become a member of St.

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Louis Metropolitan Medical Society. Dr. Parker is a native of Provo, Utah, received his preliminary education at Brigham Young University and his M.D. degree at St. Louis University in 1980.

Jaykrishna S. Patel, M.D., V.A. Medical Center, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Patel is a native of India, received his preliminary education at M.G. Science Institute, and his M.D. degree at B. J. Medical College in 1973. He specializes in internal medicine.

Pushpa S. Patel, M.D., 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Patel is a native of Kenya, received her preliminary education at Gujarat University and her M.D. degree at Gujarat University in 1977. She specializes in pediatrics.

Michael T. Railey, M.D., 1755 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Railey is a native of St. Louis, received his preliminary education at St. Louis College o Pharmacy and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in family practice.

Mary L. Ramsey, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Ramsey is a native of St. Louis, received her preliminary education at Northwestern University and her M.D. degree at Northwestern University in 1977. She specializes in psychiatry.

Vodur C. Reddy, M.D., 1031 McIntosh Circle, Joplin 64801, has become a member of Jasper County Medical Society. Dr. Reddy is a native o India, received his preliminary education at Guntur Medical College and his M.D. degree at Guntur Medical College in 1961. He specializes in urology.

John L. Roberts, M.D., 500 S. Kingshighway St. Louis 63110, has become a member of St Louis Metropolitan Medical Society. Dr. Robert is a native of Louisville, Ky., received his preliminary education at Bellarmine College and hi M.D. degree at the University of Louisville in 1976. He specializes in pediatrics.

Carlos A. Senc, M.D., 1325 S. Grand Blvd. St. Louis 63104, has become a member of St Louis Metropolitan Medical Society. Dr. Seuc i a native of Cuba, received his preliminary education at Case Western Reserve University and hi

1.D. degree at the University of Madrid in 1977. Ie specializes in internal medicine.

Sheila Shah, M.D., Methodist Medical Cen-er, St. Joseph 64501 has become a member of uchanan County Medical Society. Dr. Shah is a ative of E. Africa, received her preliminary ducation at Eliphinston College and her M.D. egree at Seth G.S. Medical College in 1969. She pecializes in hematology and pathology.

Mohammad Shakil, M.D., #1 Doctors' Park, 'ape Girardeau 63701, has become a member of 'ape Girardeau County Area Medical Society.)r. Shakil is a native of Pakistan, received his reliminary education at Khyber Medical College nd his M.D. degree at Khyber Medical College 1 1971. He specializes in neurology.

William G. Totty, M.D., 510 S. Kingshigh-'ay, St. Louis 63110, has become a member of t. Louis Metropolitan Medical Society. Dr. Tot-/ is a native of Nashville, Tenn., received his reliminary education at David Lipscomb Col-ege and his M.D. degree at the University of 'ennessee in 1977. He specializes in radiology.

Muthu C. Venugopal, M.D., V.A. Hospital, 'oplar Bluff 63901, has become a member of But-er-Wayne-Ripley-Carter County Medical Socie-/. Dr. Venugopal is a native of India, received is preliminary education at St. Josephs College nd his M.D. degree at Stanley Medical College 1 1965. He specializes in general surgery.

Madhav B. Vinjamuri, M.D., 660 S. Euclid, t. Louis 63110, has become a member of St. ouis Metropolitan Medical Society. Dr. Vin-amuri is a native of India, received his prelimi-ary education at Hindu College and his M.D. egree at the Medical College Gulbarga in 1971. Ie specializes in anesthesiology.

Arthur S. Wientzen, M.D., 373 W. 101st, Kansas City 64114, has become a member of Jack-on County Medical Society. Dr. Wientzen is a ative of Astoria, N. Y., received his preliminary ducation at Villanova University and his M.D. egree at Georgetown University in 1976. He pecializes in internal medicine.

Kathleen M. Williams, M.D., 373 W. 101st, Kansas City 64114, has become a member of Jack-on County Medical Society. Dr. Williams is a ative of St. Paul, Minn., received her prelimi-ary education at College of St. Catherine and er M.D. degree at St. Louis University in 1975. he specializes in pediatrics.

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Missouri Medicine

Vol. 78, No. 5 (ISSN 0026-6620) May, 1981

Special Review Article

Topical Corticosteroid Therapy

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Can They Be Prevented?

Alcoholic Ketoacidosis

Editor's Corner

Aphorisms

MSMA News Round-up

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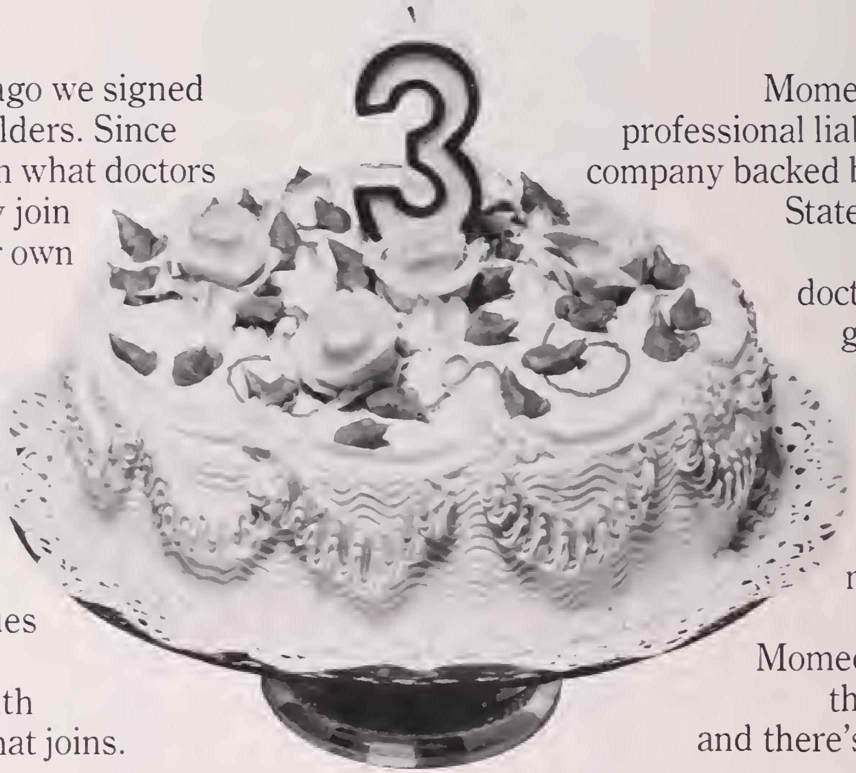
Momedico is one year older and getting even better



Just three years ago we signed our first policyholders. Since then we've shown what doctors can do when they join together for their own protection. We begin 1981 with more than 1300 policyholders. That's an 18% increase over last year. And the company continues to grow. And grow stronger with each physician that joins.

Momedico is the only professional liability insurance company backed by the Missouri State Medical Association. It is doctors in Missouri getting together to serve and protect themselves. If you are not presently a member, maybe you should be. Momedico. We've had three great years and there's more to come.

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"EVERY AGE HAS ITS PLEASURES,
ITS STYLE OF WIT, AND ITS OWN WAYS."

—from *The Art of Poetry* (1674) by Nicholas Boileau-Despréaux

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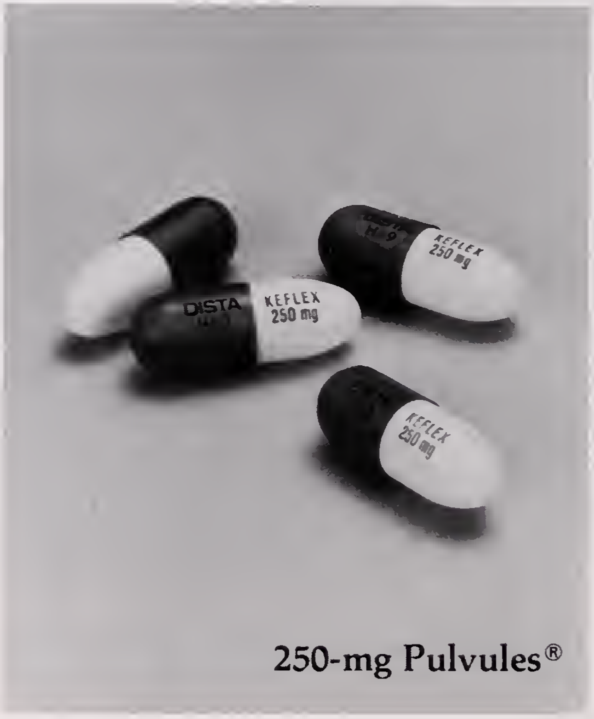
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NEWS
ROUND - UP

May, 1981

MSMA House adopts resolutions

The House of Delegates considered 36 resolutions uring the 1981 Missouri State Medical Association anual meeting, held April 9-12, at the Chase-Park Plaza otel in St. Louis.

The Delegates gave final approval to the proposed SMA Constitutional amendment which would elimiate the Interim Session. In accordance with the SMA Constitution, the resolution had been held over rom the 1980 Interim Session where it was introduced.

The delegates also approved a resolution supporting he current AMA policy on PSROs, which encourages hysician peer review rather than government directed eview programs. This policy calls for the elimination of ll government-directed peer review programs, includng PSROs. The current AMA policy regarding hiropractic was also adopted by the House of Deleates.

In all, the House adopted or referred 23 resolutions. rief explanations of these resolutions follow.

- Professional Liability Legislation — Calls for legslation endorsing the concept that the prevailing party n professional liability actions should be awarded easonable attorney's fees. Prior to initiating such acion, the attorney would be required to inform his client f the provisions of the law.
- Smoking and Health — calls for legislation irected at designating public areas as non-smoking reas. The delegates also voted to ban smoking at all oficial MSMA meetings.
- Emergency Room Physicians — encourages inreased dialogue between local physicians and mergency room physicians through an MSMA proram of active recruitment of emergency room physiians for local medical society membership.
- Repeal of HSA Legislation — calls for legislation epealing the National Health Planning Act and suports the AMA efforts to develop a program of volunary, locally based health planning.
- Health Care Delivery to the Poor — resolves that he MSMA undertake a study to determine an apropriate solution to the problem of health care delivry to the poor.
- Amendment to the Present Licensure Board Act or Physicians — calls for legislation to allow the State oard of Registration for the Healing Arts to temorarily suspend the license of a physician found to be a hreat to the public if proceedings for a hearing have egun.
- Medical Care Under CHAMPUS — encourages HAMPUS to stop the use of non-physician health proiders due to a lack of documentation of cost effectiveess.
- AMA Membership — urges all MSMA delegates, ouncilors, and component society officers to solicit inreased AMA membership.

Outgoing MSMA President, Dr. Richard V. Bradley, (left) presents the gavel to 1981-1982 President Dr. Eugene T. Hansbrough.

- Disaster Planning — instructs the MSMA to initiate a program with the State Disaster Planning and Operations Office so that in case of a major catastrophe, proper precautions can be made for the medical care of the people of Missouri.
- Mental Health Funding — encourages adequate treatment programs for the seriously mentally ill and calls for more input by physicians into the fiscal and policy making decisions affecting the treatment and care of the mentally ill.
- Medicaid — encourages the Missouri State Legislature to adequately fund the Medicaid program to insure better access to health care for the poor of Missouri.
- Caring for the Poor — encourages all physicians in Missouri to share both the privileges and the responsibilities that apply to medical care of the poor.
- Designation of Trauma Centers — urges that future determinations for designation of trauma centers in Missouri be done with the cooperation of the MSMA and the Committee on Trauma.
- Opposition to the Expansion of Optometry — urges the members of MSMA to contact their legislator to oppose the current optometry expansion bill unless the bill is amended as has been indicated.
- Hospital Staffed Satellite Clinic — referred to the MSMA Council for study and report back to the House of Delegates.
- Report on Public Relations Program — calls for a complete report on the activities of the MSMA public relations program.

Continued on Page 4

Dr. Hansbrough installed as MSMA President; Dr. Matthews voted President-Elect

Dr. Eugene T. Hansbrough, MSMA President, (left) and Dr. John I. Matthews, MSMA President-Elect, consult during the recent Annual Session.

Dr. Eugene T. Hansbrough, Poplar Bluff, was installed as the president of the Missouri State Medical Association during the President's Banquet at the 123rd MSMA Annual Session, held April 9-12, in St. Louis.

Dr. Hansbrough, who served as president-elect during the past year, succeeds Dr. Richard V. Bradley, of St. Louis.

Dr. John I. Matthews, Jefferson City, was unanimously elected as MSMA president-elect and will assume his position as president during the 1982 Annual Session.

Dr. Matthews is the immediate past chairman of the MSMA Council and served as secretary of the MSMA from 1959 to 1980. He has also been chairman of the MSMA Committee on Legislative Affairs since 1966.

In other elections, Delegates to the House selected three vice-presidents, a Speaker and Vice-Speaker, two delegates to the AMA and two alternate AMA delegates. The new officers are:

Vice Presidents

Dr. Charles P. McGinty, Cape Girardeau
Dr. George M. Bohigian, St. Louis
Dr. Donald E. McIntosh, Kansas City

Speaker

Dr. Jay Meyer, St. Louis

Vice-Speaker

Dr. Barbara Buchanan, Kansas City

AMA Delegates

Dr. Melvin C. Kasten, Cape Girardeau
Dr. Robert A. Slickman, Kansas City

AMA Alternate Delegates

Dr. Vernon Balster, St. Louis
Dr. Marvin A. Singleton, Joplin

Councilor district elections were conducted for those councilor terms which expired this Annual Session. The Third and Seventh Councilor Districts, due to increased membership, were allotted one additional councilor. MSMA Council is now composed of 22 Councilors.

Second District

Dr. Patricio Avila, Hannibal

Third District

Dr. T. J. Cooper, St. Louis
Dr. Richard H. Fallon, St. Louis
Dr. James M. Stokes, St. Louis
Dr. Robert R. MacDonald, St. Louis

Fourth District

Dr. William R. Richardson, Union

Fifth District

Dr. Larry E. Millikan, Columbia

Sixth District

Dr. A. J. Campbell, Sedalia

Seventh District

Dr. Donald E. McIntosh, Kansas City
Dr. Larry G. Piepergerdes, Kansas City

Eighth District

Dr. Walter A. German, Springfield

Tenth District

Dr. George Ladyman, Poplar Bluff

Student Councilor

Kim Webb, Columbia

The following vice-councilors were also elected:

Second District

Dr. Robert V. Tompson, Moberly

Fourth District

Dr. Paul H. Rother, St. Charles

Councilors elected during the 1981 Annual Session are: (left to right) Drs. A. J. Campbell, Sixth District; Larry E. Millikan, Fifth District; O. Martin Hasek, Vice Councilor Ninth District and Robert R. MacDonald, Third District.

Also selected as Councilors were: (left to right) Drs. William R. Richardson, Fourth District; T. J. Cooper, Third District; Robert V. Tompson, Vice Councilor Second District and Patricio Avila, Second District.

Fifth District

r. Alan L. Braun, Jefferson City

Sixth District

r. Jerry Meyer, Concordia

Seventh District

r. Milton B. Ozar, Kansas City

Eighth District

r. Charles J. Ash, Springfield

Tenth District

r. Melvin C. Kasten, Cape Girardeau

Student

im Harwood, Columbia

In a Council meeting following the MSMA House of elegates Session on April 12, the Council elected Dr. ving H. Clark, Kansas City, as chairman of the Coun- l and Dr. James Stokes, St. Louis, as vice-chairman.

The Council also re-elected Drs. Carol F. Williams, St. ouis, as treasurer and B. A. Moranville, Columbia, as cretary of the MSMA.

Officers and Councilors selected during the Annual ssion are: (left to right) Drs. Charles P. McGinty, Vice resident; George M. Bohigian, Vice President; Donald McIntosh, Seventh District and Larry G. Piepergerdes, venth District.

hysicians win portable TVs

Four AC/DC portable television sets were given away attendance prizes at this year's annual session. The ames of physician winners were drawn from cards bmitted to the technical exhibit booths.

The winners were Drs. Gary A. Dyer, St. Joseph; Olin Griffen, Buffalo; John P. Sargent, Sikeston; and edical student Kimberly Webb, Columbia.

New MSMA Council Vice Chairman, Dr. James M. Stokes, St. Louis, (left) and Dr. Irving H. Clark, Kansas City, Council Chairman.

Additional newly elected MSMA Councilors are: (left to right) Dr. Richard H. Fallon, Third District; Dr. Walter A. German, Eighth District; Mr. Tim Harwood, Student Vice-Councilor and Ms. Kimberly Webb, Student Councilor.

Foundation elects officers

The Missouri State Medical Foundation held its annual meeting April 11 at the Chase-Park Plaza. The following officers were elected:

Max S. Franklin, M.D., St. Louis — President
Miles C. Whitener, M.D., St. Louis — Vice President
Robert H. Tanner, M.D., Jefferson City — Secretary-Treasurer

Also at the meeting, Frederick W. Hahn, M.D., Kansas City; and John P. Sargent, M.D., Sikeston, were elected to the Foundation's Board of Directors. In addition, Albert D. Cross, M.D., Trenton, was re-elected to the Board.

"Key Contacts" Still Needed

egislative key contacts are still needed for many of the state representatives. The following names complete the list hich began in the May News Round-Up. The Legislative Session ends June 15, so if you know these legislators and ould be willing to contact them — please notify MSMA Headquarters immediately!

epresentative	District	City	Zip
ohn Goldman	102	Afton	63123
ayne Goode	68	Normandy	63121
ob Griffin	10	Cameron	64429
ichard Hamilton	131	Waynesville	65583
atrick Hickey	72	Bridgeton	63044
rchid Jordan	25	Kansas City	64109
illiam "Bud" Lewis	125	DeSoto	63020
eo McKamey	36	Kansas City	64130
W. "Lew" Maddox	163	Clarkton	63837
ean Mathews	56	Florissant	63033
dward E. Ottinger	101	St. Louis	63109
tan L. Piekarski	64	St. Louis	63107
arl A. Pitts, Sr.	32	Kansas City	64122
on Randall	8	St. Joseph	64503
athaniel J. Rivers	79	St. Louis	63112
ames (Jay) Russell	58	Florissant	63031

Representative	District	City	Zip
Robert Sego	43	Raytown	64133
David L. Steelman	129	Salem	65560
William H. Steinmetz	91	Creve Coeur	63141
Kaye Steinmetz	57	Florissant	63031
Keith Stotts	141	Pierce City	65723
Bill Strassburger	62	St. Louis	63147
James Tindall	23	Kansas City	64127
Charles Troupe	63	St. Louis	63115
Thomas Villa	103	St. Louis	63116
Elbert A. Walton, Jr.	80	St. Louis	63106
Winnie P. Weber	122	House Springs	63051
Alan D. Wheat	26	Kansas City	64128
James Whitmore	67	St. Louis	63112
Eddie Williams	140	Goodman	64843
Fred E. Williams	78	St. Louis	63112
Robert Ellis Young	136	Carthage	64836

Annual Session (continued)

- Location of Annual Session — resolves that every third session of the House of Delegates may be held at the Lake of the Ozarks.
- Hospital Governing Bodies — resolves that the MSMA oppose House Bill No. 527.
- Insurance Companies Use of the Phrase "Usual, Customary and Reasonable" — referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations for further study and report back to the House of Delegates.
- Induced Abortion Questionnaire — urges that the Missouri Division of Health distribute questionnaires on induced abortions to hospitals and clinics rather than pathologists.
- Local Problems/Local Action — encourages local medical societies to engage in local political/governmental policy so that local solutions can be found for medical problems in the political arena.

Dr. John N. Martin (left) is presented with a plaque by Dr. Thomas R. Berglund, AMPAC Board of Directors, in honor of MMPAC receiving first place for the largest membership increase over the prior year. MMPAC also received second place for the ratio of members to potential members and second place for all events.

Controlled Substances Inventory Required

The federal Controlled Substances Act requires all registrants to take a complete inventory of the controlled substances on hand every two years following the date on which the initial inventory was taken. May 1 was the date of the initial inventory.

In lieu of the May 1 inventory date, a registrant is allowed to take the inventory on the registrant's nearest general physical inventory date, or any fixed date, if it is not more than six months from the May 1 date.

If a registrant elects either of these options, the DEA should be notified of the decision and of the date on which the inventory will be taken.

Inventories of Schedule II substances shall be made by an exact tablet or capsule count or measure of liquid contents. For substances listed in Schedule III, IV, or V, the registrant shall make an estimated count or measure of the contents, unless the container holds more than 1000 tablets or capsules, in which case an accurate count of the contents is required.

The inventory must also be maintained in a written, typewritten or printed form and an inventory taken with oral recording device must be promptly transcribed.

The inventory record must:

List the name, address and DEA registration number of the registrant.

Indicate the date and time the inventory is taken.

Be signed by the person or persons responsible for taking the inventory.

Be maintained at the location appearing on the registration certificate for at least two years.

Any questions regarding the inventory requirements should be directed to your local DEA regional office or the Bureau of Narcotics and Dangerous Drugs.

MOMEDICO holds annual meeting, elects officers

The first annual shareholder's meeting of the Missouri Medical Insurance Company (MOMEDICO) was held Saturday, April 11, 1981 at the Chase-Park Plaza Hotel.

The following persons were elected to serve on the MOMEDICO Board of Directors:

Richard V. Bradley, M.D.
Irving H. Clark, M.D.
Royal O. Cooper
Thomas J. Cooper, M.D.
E. T. Hansbrough, M.D.
James L. Hamilton
George H. Ladyman, M.D.
Howard E. Linville, M.D.
John N. Martin, M.D.
Howard J. McAlhany, M.D.
Andrew McCanse, M.D.
Donald McIntosh, M.D.
Garth S. Russell, M.D.
James M. Stokes, M.D.

Following the shareholders meeting, a Board of Directors meeting was held to elect officers and appoint committees.

The new officers of MOMEDICO are as follows:

Howard J. McAlhany, M.D.	Chairman
Irving H. Clark, M.D.	Vice-Chairman
Richard V. Bradley, M.D.	President and Chief Executive
Roger D. Detrich	Executive Vice-President and Chief Operating Officer
Garth S. Russell, M.D.	Chief Financial Officer
James M. Stokes, M.D.	Chief Accounting Officer
Royal O. Cooper	Secretary and Treasurer
James L. Hamilton	Vice-President
John N. Martin, M.D.	Vice-President

Also at the meeting, Peat Marwick Mitchell & Company were confirmed as auditors for 1980-81. Article V was approved for amendment as stated in the proxy statement.

MOMEDICO, which went public via a 1980 stock offering, reported assets of $6,345,280 at year-end 1980 versus $5,294,602 for December 31, 1979. Net premiums written increased to $1,790,888 as of December 31, 1980 versus $1,570,702 at year-end 1979. Investment income for 1980 totaled $571,659 versus $410,925 for 1979. Today, MOMEDICO insures over 20 percent of all Missouri physicians.

However, a loss of $3,538 for the year ended December 31, 1980 was reported by MOMEDICO. Commenting on the loss, Dr. Bradley said that the loss was not unexpected and resulted primarily from the company's decision to comply with a request from the Securities and Exchange Commission pursuant to MOMEDICO's public stock offering.

"The SEC requested that we establish a reserve for loss and loss adjustment expenses in an amount at least sufficient to reduce MOMEDICO's net earning to zero. As a result of this same request, MOMEDICO's after tax earnings for the years 1979 and 1978 have also been restated to zero," said Dr. Bradley.

"Although the actual loss experience will depend upon future claims settlement, we agreed that the inherent uncertainty in determining the appropriate reserve made this action reasonable."

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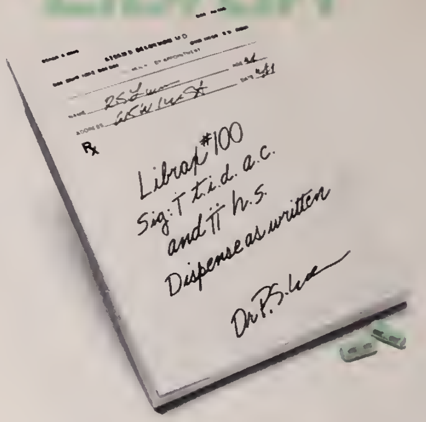

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Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.
Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

> ***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction; changes in EEG patterns may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

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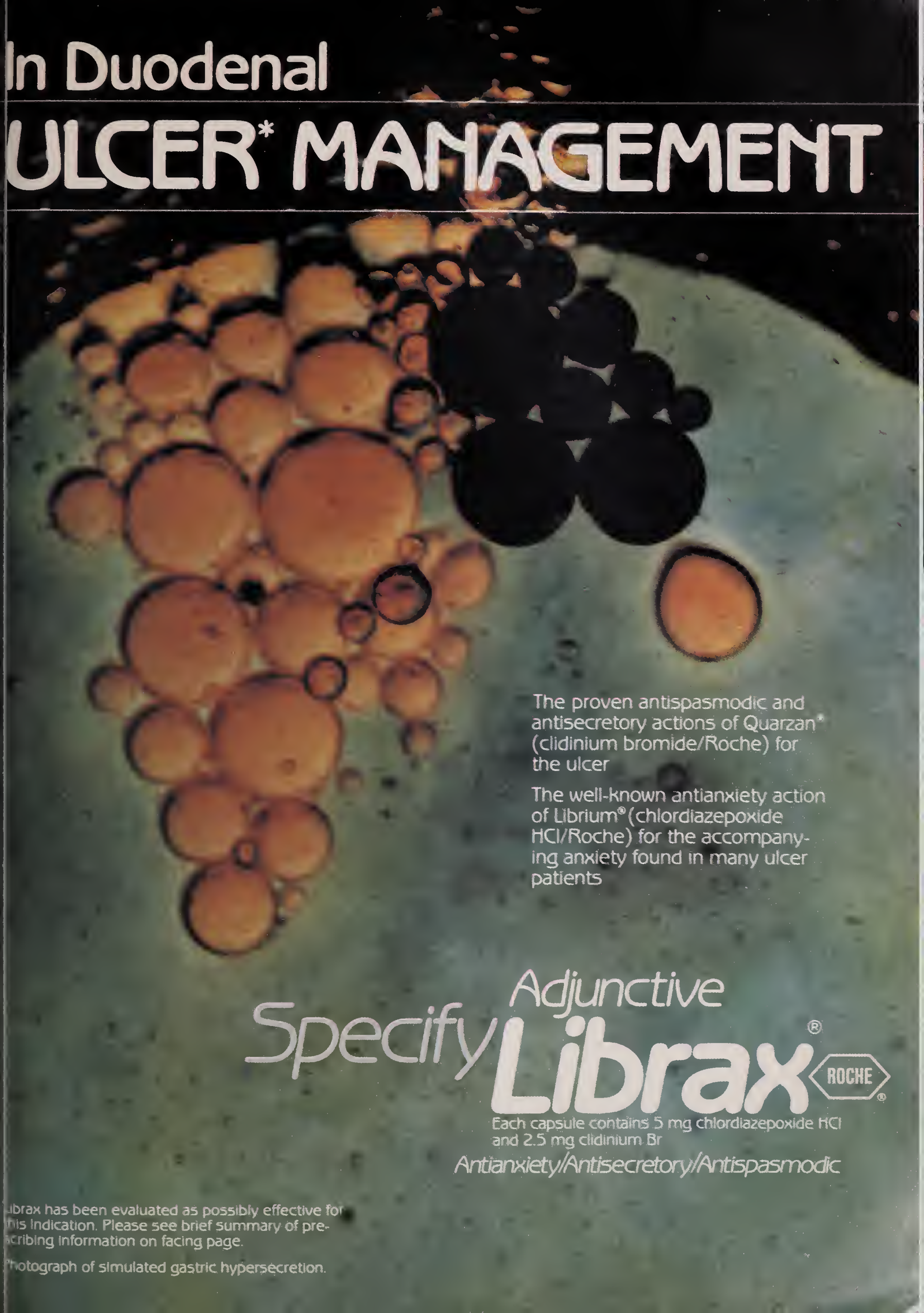

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hotograph of simulated gastric hypersecretion.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.

40
35
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getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

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75 mg. controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "... anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

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Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle, the patient should therefore be cautioned accordingly *Drug Dependence* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia *Use in Pregnancy*: Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored Titration of dose or discontinuance of Tenuate may be necessary

ADVERSE REACTIONS: *Cardiovascular* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride *Central Nervous System* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances *Allergic.* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in midmorning Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage

Product Information as of January, 1980

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York Raven Press, 1978, pp. 391-404

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Photo-Comment by James W. Clawson, M.D., Springfield

See 'Aphorisms,' opposite page.

Editor's Corner

APHORISMS

All harsh and repressive measures should not be discouraged in a democracy.

For example, if I should awaken tomorrow as President of the United States, my first official action would be to place all designers of women's shoes before a firing squad.

True enough, I might wipe out a few who were not deserving, but society should not be called on to endure most of those rascals. The painful lumps, knobs and excrescences caused on women's feet by shoes are simply too much, even in a world warped by fashion.

* * *

Every visit to a doctor's office is, in one way or another, a unique and individual patient experience.

We doctors forget that.

* * *

Personal attire is for two purposes; comfort and appearance. Comfort is the most practical. However, a person's dress should reflect his stature in society.

If this is true, I believe the dress of all too many physicians has become miserably poor. On one hand, the way the average doctor dresses fails to take into account the niceties of appearance and might, therefore, cause him to be confused with a millionaire plumber. Or he might appear to have stopped by for hospital rounds on the way to a beach party.

A doctor should look like a doctor. When he does look like a doctor, he will more likely be thought of as a doctor and accorded the respect due a doctor.

* * *

Progress! Ain't it wonderful!

The airplane must be a glorious invention for the United States Postal System.

With planes flitting about at 600 miles per hour, I can now get a letter from Hong Kong in about the same time as one from Cincinnati — six or seven days.

* * *

The chief aim of the younger and inexperienced physician is to charge about madly and cure everyone.

The chief aim of the older and wiser physician is to teach the patient to live with his illness.

* * *

If any of you get to thinking that our system of government is the best, please pause and consider this sobering thought.

IF THE WORST COMES TO THE WORST, YOUR KID COULD GROW UP AND BECOME PRESIDENT.

* * *

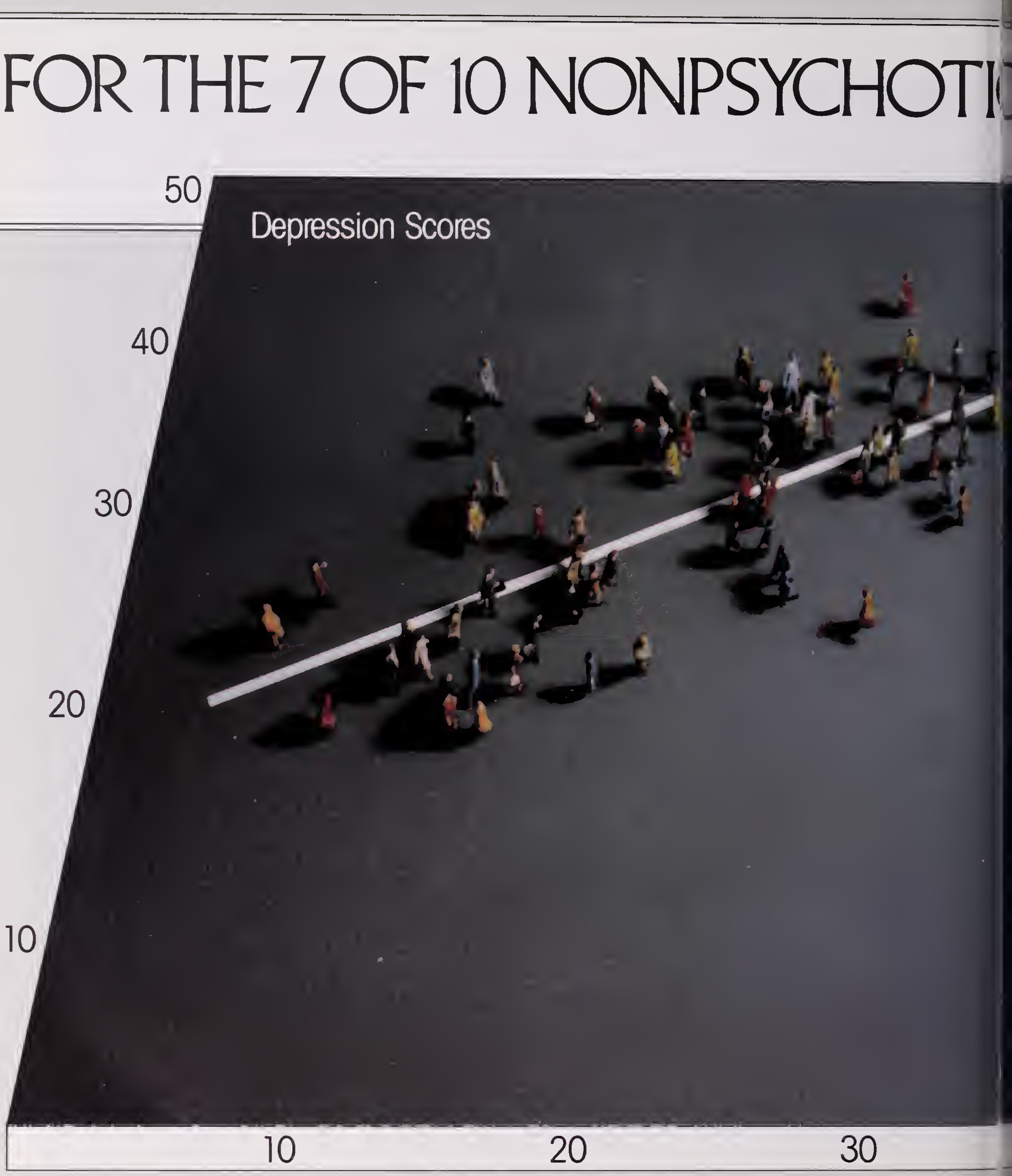
The baddest days you will have in practice will be those when a string of people have nothing wrong.

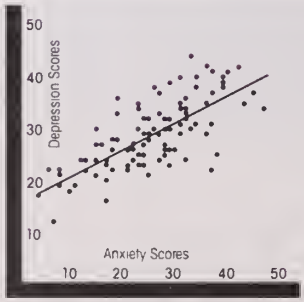
* * *

When a fellow reaches the age of 70, he should probably cease to reminisce. It's not that he doesn't have something worthwhile to say. It's that he has probably said it to the same people twice before.

Wilfred E. Wooldridge, M.D.

FOR THE 7 OF 10 NONPSYCHOTI





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3] Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

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EPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

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References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

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Please see summary of product information on next page.

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Before prescribing, please consult complete product information, a summary of which follows:
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Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously, gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction
Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g , operating machinery, driving).
Usage in Pregnancy: **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period. Not recommended in children under 12
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects
Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs
Cardiovascular: Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke
Psychiatric: Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido
Neurologic: Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns
Anticholinergic: Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract
Allergic: Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus
Hematologic: Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
Gastrointestinal: Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue
Endocrine: Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels
Other: Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling
Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment
Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single *h.s* dose may suffice for some patients Lower dosages are recommended for the elderly Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses
How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

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WARNINGS:

Drug dependence· Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

Acute abdominal conditions· The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally The usual adult dose for Empirin with Codeine No 2 and No. 3 is one or two tablets every four hours as required The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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Special Review Article

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Topical Corticosteroid Therapy

The present diversity of available topical corticosteroids has resulted in a broad selection of optimal preparations for many different applications. But this proliferation has also resulted in a dilemma as to the appropriate selection of proper agent or vehicle or both. Today, there is available a wide spectrum of corticosteroids of varying potency ranging from the over-the-counter, low potency ½% hydrocortisone to the highly potent (and thus potentially adrenal-suppressive) fluorinated corticosteroids. In addition, sophisticated vehicles have been developed over the last several years that allow a much better patient acceptance and better delivery of the corticosteroid to the skin. Even so, one must bear in mind that only about 1% of the corticosteroid[1] penetrates the dermis. With newer vehicles, and more potent corticosteroids, this percentage (and thus pharmacologic effect) will undoubtedly increase n the future.

Common mistakes in the use of topical corticosteroids include the following:

1. Failure of consideration for area of body treated in selecting the topical corticosteroid
2. Inappropriate selection of corticosteroid (including using too potent a corticosteroid)
3. Improper selection of vehicle
4. Failure to consider additives or other preservatives

In all these cases, a more careful analysis of the situation and appropriate selection of the corticosteroid would allow more effective therapy at a lower cost to the patient. Let us consider these mistakes and how to lessen them:

1. *Selecting the Appropriate Topical Corticosteroid — Anatomical Considerations*

Anatomical considerations play a significant role in percutaneous penetration of corticosteroids and are critical in selection of the appropriate topical corticosteroid. Some earlier studies have addressed this, comparing relative absorption or

Although a wide spectrum of corticosteroids of varying potency is now available, corticosteroid therapy need not be a haphazard or chance regimen. Proper selection of the appropriate vehicle matched to the site of body treated and proper selection of the corticosteroid in relation to the severity or extent of disease will assure both optimal response and minimal cost to the patient. This comprehensive review of topical corticosteroids includes a list of common mistakes made in their use.

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TABLE 1
PENETRATION STEROIDS IN VARIOUS PARTS OF BODY[2, 4, 7, 8]
(Expressed as % of Total Dose)

Forearm (Ventral)	1.0%
Foot (Sole)	0.14%
Palm	0.83%
Scalp	3.5%
Forehead	6.0%
Jaw	13.0%
Scrotum	42%

TABLE 2
PRINCIPLES OF CORTICOSTEROID POTENCY AND COST
STEROIDS — A Simple Categorization

A. *High Potency*
Possible systemic absorption and adrenal suppression preferred for acute lesions and short (less than three weeks) course of therapy.

High Cost
- Diprosone®
- Lidex®
- Topicort®
- Florone®
- Cyclocort®

B. *Medium Potency*
Best for most chronic lesions and chronic therapy.

Moderate Cost
Less systemic absorption
- Westcort®
- Cordran®
- Valisone®
- Aristocort®
- Kenalog®
- Synalar®

C. *Special Preparation*
Used on face and other areas with concern over complications of atrophy/telangiectasia.
- Tridesilon®
- Hydrocortisone

penetration of corticosteroids. On the forearm, about 1% of the applied dose of corticosteroids is absorbed (Table 1).[2, 3] One can appreciate a broad variation in the amount of the penetration of corticosteroids in other areas such as those with thin skin such as the scrotum (42% absorption) and the thick hyperkeratotic areas, foot, arch (0.14%) and palms (Table 1).[4] This often explains the difficulty in treatment to certain areas of the body, especially in the treatment of corticosteroid responsive dermatoses on the palms and soles, which requires the most potent corticosteroids for any effect (Table 2, Group A or Table 3, Group I or II). From this (Table 1), one could easily see that a very mild or less potent corticosteroid (and hence much less expensive) is all that is usually necessary to treat the scrotum or the eyelids and face (Table 2, Group C; Table 3, Class V or VI). In contrast, one may not achieve the same effect even with a potent corticosteroid (Table 2, Group A; Table 3, Class I or II) on the palms or soles.

Therefore, a careful consideration of the area to be treated is as important as the appropriate selection of the corticosteroid to be used.

Other anatomical considerations play a significant role in the selection of corticosteroids. Optimal application is an equally significant consideration for certain areas of the body. Hairy areas are generally very difficult to treat and to provide optimal application of the corticosteroid. Greasy ointments are the most difficult to apply to hairy areas. In these areas, there is an enhanced absorption (Table 1) and a less potent corticosteroid may be used. Thus, in these areas, for ease of application and for evenness of application, aerosol vehicles seem to be the preferable form of corticosteroid used at the present time. After aerosol vehicles, the various lotions and solutions are the second best selection. In areas with thick stratum corneum, one needs the most potent appropriate preparations to achieve benefit. This includes ointments and the water-in-oil preparations. For most other areas, the most cosmetically elegant creams are preferable. They offer intermediate penetration of the active agent and the best patient acceptance. The gel vehicles offer much promise for the future. Although patients occasionally complain that gels are associated with burning, they generally approach the penetration characteristics of ointments with much greater cosmetic acceptance.

2. *Selecting the Appropriate Topical Corticosteroid — Pharmacologic Considerations*

Bearing in mind the appropriate choice of vehicle and the consideration of the areas to be treated, one should also consider the corticosteroid to be used. Changes in the vehicle and changes in the potency of topical corticosteroids have resulted in a modification of this approach because of the extreme potency of some of the newer corticosteroids. The best example of this is perhaps the drug clobetasol (Dermovate®), presently available only in Europe. Availability of this drug marked a significant change in corticosteroid pharmacology, for this was the first drug found to have extensive absorption and adrenal suppression with usual topical use.

Other of the newer corticosteroids available in he U.S. can also offer nearly the same degree of potency and, therefore, one now must use more care and judgement in the selection of corticoseroids. A proper approach to corticosteroid therapy would be to consider corticosteroids in several groups (Table 2). Group A — High potency corticosteroids for acute dermatoses with an inended short-course therapy. Group B — Inermediate strength corticosteroids, which have an adequate level of potency, seem to have ninimal side effects, are reasonably inexpensive and can be used for long-term therapy. Group C — Special, weaker corticosteroids for particular areas of the body (i.e., eyelids, scrotum) and for he avoidance of particular complications such as elangiectasia and atrophy. A scientific approach to this is now available with Stoughton's work,[2, 4] ooking at vasoconstrictor assays and their effect on corticosteroid potency (Table 3).

While the vasoconstrictor assay does not correlate completely with corticosteroid potency, it erves as the best available parallel at the present ime. Stoughton has divided these corticosteroids nto several categories on the basis of their vasoonstrictor effects.[4] These are listed in Table 2. One will immediately note, from this table, that he most potent corticosteroids are generally hose with fluorine in the molecule and, in general, sophisticated vehicles and ointments provide he most effective delivery and most potent cortiosteroid effect for a given concentration of the drug. This can be used as an important guide to election of the appropriate corticosteroid.

In addition, one should always be aware of the rea of the body covered in selection of corticoteroids as discussed above. There is a vast difference in surface topography and thickness of the tratum corneum. The stratum corneum over the palms and soles is several hundred times as thick s that over the eyelids and scrotum, and a Class I teroid is nearly always necessary to achieve significant results. The face presents the opposite case, and here a group V or VI (Group C, Table 2) is the most appropriate selection. Acute lesions require potent topicals (Group A, Table 2 or Class or II, Table 3). Chronic skin problems requiring maintenance therapy are best treated with cortiosteroid preparations of moderate potency Group B, Table 2, Class III-IV, Table 3).

Selection of the Vehicle

Vehicle selection is an important step in any form of topical corticosteroid therapy. The underlying cutaneous problem should have the first consideration in modifying the vehicle choice. Wet, macerated lesions usually require a more liquid vehicle to prevent occlusion and further maceration and allow for drying. Often ointments are the only well-tolerated vehicles on open lesions that are not draining. In this case, one must follow closely to avoid maceration and other complications of therapy.

TABLE 3
ORDER OF POTENCY*

I.	**Diprosone® ointment 0.05%**
	Halog® cream 0.1%
	Lidex® cream 0.05%
	Topicort ointment 0.25%
	Topsyn® gel 0.05%
	Florone® ointment 0.05%
II.	**Aristocort® cream 0.5%**
	Diprosone® cream 0.05%
	Flurobate® gel (Benisone® gel) 0.025%
	Topicort cream 0.25%
	Valisone® lotion 0.1%
	Valisone® ointment 0.1%
	Florone® cream 0.05%
III.	**Aristocort® ointment 0.1%**
	Cordran® ointment 0.05%
	Kenalog® ointment 0.1%
	Synalar® cream (HP) 0.2%
	Synalar® ointment 0.025%
IV.	**Cordran® cream 0.05%**
	Kenalog® cream 0.1%
	Kenalog® lotion 0.025%
	Synalar® cream 0.025%
	Valisone® cream 0.1%
	Westcort® cream 0.2%
V.	**Tridesilon® cream 0.05%**
	Locorten® cream 0.03%
VI.	**Topicals with hydrocortisone, dexamethasone, flumethalone, prednisolone and methyl prednisolone**

* Group I is the most potent and potency descends with each group to Group VI which is least potent. There is not significant difference of agents within any given group. Modified from Stoughton[4] and Medical Letter.[11]

If faced with treating a wet, macerated lesion, soaks for a day or two to dry the lesion may be the most appropriate initial choice of therapy prior to the addition of corticosteroids. Because of the alcohol in the vehicle, burning or stinging is a problem with most of the lotions and creams on raw or excoriated lesions. When one chooses a cream or lotion vehicle, the trade-off is less absorption of the corticosteroid so they are cosmetically superior but therapeutically inferior to ointments. The new gel formulations offer a much greater potency and penetration while also offering the ease of spread seen with lotions. One should be aware that in many of the gel formulations, there is also alcohol or propylene glycol, which results in many patient complaints of stinging or burning.

Hairy areas generally create problems for the application of thick creams and greasy ointments. Even application and adequate coverage is nearly impossible. In these cases, some of the solutions, gels or aerosols are the most appropriate form of therapy. For an acute weeping lesion, such as a generalized acute contact dermatitis, often the aerosol form of corticosteroid is the most appropriate therapy because of the discomfort associated with the manual application of the corticosteroids. The cooling effect of the aerosol also helps relieve symptoms. Aerosols generally have less potency than ointments or creams but when used on many of the open lesions, penetration is not a significant problem in therapy. Intertriginous areas, because of the constant moisture, generally allow greater penetration of corticosteroid and a less potent vehicle is often satisfactory.

In addition, maceration may be a problem with the thicker creams and ointments and here, once again, gels, lotions or solutions are the most appropriate therapy. In the groin or over the scrotum, where the skin is very thin, one should use low potency corticosteroids and a solution or lotion vehicle for more even coverage to prevent complications such as atrophy.[5]

The general principles, listed in Table 4, should be borne in mind to bring order to the many complicated factors mentioned above.

Additives

Frequently, we observe the case of a patient whose cutaneous problem responds initially to topical therapy, but plateaus after several weeks of treatment. There are several reasons for this, one of which is acquired resistance to the steroids or tachyphylaxis. Another occasional cause is related to additives in the preparation. Patients sometimes acquire sensitivity to various additives which may interfere with optimal therapeutic response. Additives of which a physician should be aware include preservatives, antibiotics and various combinations of ingredients designed to enhance the effect of the steroid.

TABLE 4
PRINCIPLES IN VEHICLE SELECTION

1. Ointments are generally the most potent, but because they are greasy, often not liked by patients.
2. Creams are the most desirable cosmetically but less potent.
3. Lotions, aerosols and solutions are the least potent but useful in hairy areas and in conditions where large areas are to be treated.
4. Newer gel formulations offer the best therapeutic attributes of ointments and cosmetic attributes of creams.
5. Certain lesions have obvious therapeutic indications:
    Thick hyperkeratotic lesions — ointment
    Moist macerated lesions — lotions or solutions
    Facial lesions — creams (Class V or VI)

One should always be aware of this problem. It occurs most commonly with creams and lotions and rarely with ointments. Offending preservatives include parabens and ethylene-diamine and, less frequently, other newer substitutes for them. Topical antibiotics, especially neomycin, can also cause problems. These possibilities should be borne in mind whenever a patient plateaus or shows lack of response to a steroid. The appropriate determination of the problem includes patch testing, which can be as simple as placing the suspect preparation on the gauze pad of a Band Aid® and taping on the under surface of the arm (with a plain Band Aid® control) and leaving it on for 48 hours. If one notices a localized erythematous and/or vesicular patch indicating a positive contact dermatitis reaction, it is then necessary to further determine which component of the suspect product is causing the problem. Pharmaceutical firms are often very helpful by supplying the individual ingredients of their marketed products so that offending allergens can be determined. One can then choose an appropriate topical preparation without that allergen.

Tachyphylaxis

Tachyphylaxis is an apparently real problem with chronic corticosteroid therapy. Investigations have confirmed these findings[6] and suggest the reasons for change in responsiveness to a given topical corticosteroid with chronic therapy. This also may explain the enhanced effectiveness seen with any new topical corticosteroid soon after its introduction.

With the awareness of the possibility of tachyphylaxis, appropriate and timely change in the type of corticosteroid used can be made by careful monitoring of the patient's individual response to therapy. When it appears that the patient's response is at a plateau, it is then a most appropriate time to consider changing the topical corticosteroid being used. One can then optimize response to topical corticosteroid therapy and, at the same time, minimize cost to the patient.

Anticipating Complications

A few complications seem to be common

enough to warrant discussion. These include the following:

1. *Complications With Facial Use of Potent Corticosteroids*

Facial problems with corticosteroids have become a significant concern in the last two decades. It is felt by many that some of the very chronic and resistant dermatoses of the face are, ndeed, aggravated by corticosteroids, including rosacea and perioral dermatitis. Patients with corticosteroid rosacea are patients who initially seem to do well with a topical corticosteroid treatment for their facial rash. Ultimately, the disease becomes less and less responsive to continued corticosteroid therapy, but a major problem arises when corticosteroid therapy is withdrawn, dramatic flares ensue.

Both corticosteroid rosacea and perioral dermatitis seem to be largely related to the more potent fluorinated corticosteroids, and therapy is often accomplished by gradual withdrawal of the fluorinated corticosteroids and substitution of a milder hydrocortisone-like preparation.

Chronic potent corticosteroid therapy on the face can also lead to atrophy and telangiectasia with or without the usual picture of corticosteroid rosacea. For this reason, chronic use of potent corticosteroids on the face is to be discouraged. Hydrocortisone and some of the other Group V- or VI-type preparations seem to be the most appropriate choices for treatment of cutaneous problems on the face.

2. *Corticosteroid Atrophy and Striae*

Prolonged use of corticosteroid elsewhere can result in significant atrophy and occasionally the appearance of striae, as is often seen with chronic systemic corticosteroid therapy. Striae formation with topical corticosteroids seems to be more prone to occur in areas around major joints where both stretching the skin and occlusion occur. This is most commonly in the groin and axilla[5] but has been seen around other joints, occasionally in patients treated chronically with potent topical corticosteroids.

Chronic use of these agents in the perianal region or vulva area can also result in significant atrophy. Treatment of the genital area on the male and the female should be done with care because of this potential problem of atrophy. In the elderly, the prolonged use of potent corticosteroids seems to exaggerate the cutaneous atrophy present in all patients with aged skin. This seems to enhance the chances of traumatic purpura, usually of a more extensive and cosmetic problem than the usual senile purpura.

Ultimately, with chronic use, cigarette paper-thin skin may occur and is especially likely with the use of occlusion. Occlusion seems to be less necessary at the present time with the availability of much more potent corticosteroids. However, with occlusion, one can enhance the effect of a Class III or IV corticosteroid considerably, perhaps up to that of a Class I, resulting in all the potential complications of a Class I corticosteroid with what is usually regarded as a much safer corticosteroid formulation or concentration.

3. *Alteration of Cutaneous Infections and Infestations*

Perhaps nothing has emphasized the local problem with topical corticosteroid therapy more than the appearance of resistant oral thrush in patients receiving beclomethasone oral aerosol inhalant. This is a particularly florid and difficult problem on the mucous membranes. Similar difficulties have occurred with mucous membrane use of other topical corticosteroids in the past.

More subtle, and sometimes more serious, are the problems of alteration of the appearance of infections on other parts of the body. This has given rise to the terms "tinea incognito" and "scabies incognito,"[9] which appropriately describes the problem. In these instances, a mild infection or infestation is wrongly diagnosed and treated with topical corticosteroids. Topical corticosteroids employed in fungal, yeast and some bacterial infections may cause temporary symptomatic improvement and, thus, encourage further use. Topical corticosteroids for infestations will also result in temporary improvement of the pruritus. As a result, that use further confuses the situation, and there can ultimately be serious sequelae.

In the case of tinea incognito, fungal elements can penetrate down into the follicles and sometimes even into the dermis. We have seen patients with limited tinea develop widespread eczematous disease that is strongly positive on potassium hydroxide examination. It is appropriate to emphasize that any cutaneous eruption that seems atypical and has been treated with corticosteroids needs to be evaluated further for the possibility that it is a masked infection or infestation. The problem in scabies is particularly difficult, for the patients treated with corticosteroids develop heavy infestations and, in our experience, are the source of many epidemics because of their large number of infecting organisms.[9]

4. *Adrenal Suppression*

Systemic absorption is another serious problem.[10] The advent of clobetasol has been the prime example. Better standards are being evaluated by the Food and Drug Administration at the present time. We hope these will allow a more careful premarketing evaluation of the potential of these drugs to cause significant adrenal hypothalamic-pituitary suppression. For the present, it would seem that the use of a Class I, II and perhaps some Class III corticosteroids over a prolonged period of time is potentially adrenal suppressive. Appropriate evaluations should be made to follow the patient during that period. Likewise, the use of occlusion with Class III or Class IV corticosteroids can so enhance their potency as to require the same precautions.

Corticosteroid therapy need not be a haphazard or chance regimen. Proper selection of the appropriate vehicle matched to the site of body treated and proper selection of the corticosteroid in relation to the severity or extent of disease will assure both optimal response and minimal cost to the patient. An awareness of potential sequelae with the use of these corticosteroids will prevent compromising the safety of these agents. An awareness of the problem of tachyphylaxis will help one to anticipate the ultimate plateau of therapeutic benefit. Bearing all these principles in mind, one can safely, effectively and economically treat the patient.

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ROBERT D. HALL, Ph.D., *and*
PHILIP C. ANDERSON, M.D., *Columbia*

Brown Recluse Spider Bites: Can They Be Prevented?

Is it possible to guarantee protection indoors from brown recluse spider bites? Available information indicates that chemical prophylaxis is unlikely to do so. Also, the problem of reinfestation is continual. The authors have reviewed the literature relative to these and other topics and offer advice and presumptions for further study.

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Necrotic loxoscelism in humans has attracted considerable professional and public attention in the Central and Southern United States, especially during recent years. The connection between the disease and envenomation was first confirmed at the University of Missouri in 1958,[1] although the causative organism in this region, the brown recluse spider (*Loxosceles reclusa*, Gertsch and Mulaik), undoubtedly had been present much longer.

In recent decades, the chemistry and biologic actions of the venom have been studied carefully.[2-10] Particular attention has been given to the process of venom-activating mediators of inflammation in animals or man.[11] Recently, Campbell and others have reported the presence in venom of an unusual hemolytic enzyme, sphingomyelinase-D.[12] The medical management of the bite has been studied opportunistically in human cases and much more systematically by in vitro methods or by animal experiments.[9, 13-18] The elucidation of an immunologic test for diagnosis thoroughly changed the clinical understanding of loxoscelism.[19]

For purposes of planning therapy, a sharp distinction now is made between simple cutaneous loxoscelism and the far more serious systemic complications of the disease. In prior reviews,[20] Anderson has pointed out that no early therapy can be given the bite victim which will reliably prevent aseptic necrosis of skin by the venom. He has discussed the inappropriateness of routine early excision of presumptive spider bites. Severe systemic loxoscelism in humans has not been studied thoroughly as yet, due in part to the rarity of that life threatening illness.

Whereas the chemical properties and physiological effects of the venom are comparatively well-known, and significant advances have been made in clinical therapy for bite victims, the usual circumstances leading up to bites from this pest and reliable means of preventing such bites have been the subjects of much confusion. We have, therefore, reviewed the literature relative to these topics and offer some advice and presumptions for further study.

The brown recluse spider is known to occur mainly in the south central U.S. east of 100° and south of 42°N. The following states are involved: Alabama, Arkansas, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, Ohio, Oklahoma, Tennessee and Texas.[21, 22] The Ozark region and adjacent areas of Arkansas, Kansas, Missouri and Oklahoma are reported to be the most abundantly infested. However, occasional cases of loxoscelism are reported from outside this area, probably because the spider may be carried in moving vans with household goods. In the southern part of its natural range, the brown recluse is found mainly outdoors, particularly under rocks. In the north, the species lives as a house spider.[23] In one study, 31% of brown recluse spiders collected in northwestern Arkansas were found outside, with 69% being collected from inside buildings.[24]

The spider, being primarily nocturnal, may not be observed often, is difficult to find and may conceal its webs in remote, hard-to-reach areas in a building. The incidence of bites was reported to be greatest during the months from June through October.[21] In the mid-Missouri region, most instances of humans bitten by this spider are seen from April through July.

The reproductive capacity of this species is impressive. The average number of offspring per female was found to be 65, with longevity of males averaging 543 days and that of females 628 days. The range of suitable foodstuff in nature is very wide, and individual spiders may be capable of surviving up to six months without food or water.[24]

Only a few reports concerning the effectiveness of chemical acaricides against this species are available. Studies with lindane showed an LD_{50} of 13.2 µg/g against adults, with trithion next at 19.0, diazinon at 34.0, pyrethrum at 104, malathion at 109, and carbaryl at 6192.[24] Dichlorvos in resin strip or spray formulation at legal application rates was found to be relatively ineffective.[25]

It has been suggested that the application of acaricide is not the most effective means of preventing contact between this species and man, in part because the most effective fumigants are too toxic for use inside occupied dwellings. In addition, brown recluse spiders usually hide in areas that may be missed during routine application of contact acaricide. Consequently, good housekeeping habits were offered as the action of choice,[26] although no comparative efficacy data are available. Most authors discourage routine chemical applications for control of the brown recluse spider; one report recommended acaricide treatment only when the spiders were known to be present.[27] No conclusive long-term studies of this problem have been reported.

Is it possible to guarantee protection indoors from brown recluse spider bites? This question is frequently asked of physicians, entomologists and public health officials. Available information indicates that chemical prophylaxis is unlikely to do so. Those chemicals proven most effective against brown recluse spiders can be recommended for application only in limited areas and such practice reduces their control potential. It would be impossible to achieve sufficient aerosol titers of compounds such as dichlorvos to control brown recluse spiders without adversely affecting occupants of the building. Definite concerns must be expressed in general about the safety of long-term exposure to humans or these pesticides when applied indoors under intense regimens.

Furthermore, the problem of reinfestation is continual. It is probable that brown recluse spiders regularly seek entry into most buildings in the Ozark region. Even ignoring concerns for a safe indoor environment, if such a building were thoroughly and continually treated with an acaricide proven effective against the brown recluse spider, it would be possible that an entering spider could inflict a bite before succumbing to the poison. The fact that many chlorinated hydrocarbon and organophosphorous acaricides produce increased activity and irritability in arthropods prior to death may be important in such an example. Considering the probability that many spiders are likely transported inside boxes and similar packings, we see that the opportunity for massive reinfestation inside public buildings is increased greatly.

The ability of the spider to survive in the absence of food indicates that control via suppression of food sources may be wholly ineffective. While thorough cleaning and sanitation should reduce the possibility of infestation, the aforementioned reinfestation pressure is probably sufficient to override any effort to eradicate *Loxosceles* from buildings.

In summary, fumigation of occupied buildings is not effective and no one can guarantee that spiders will not enter promptly after treatment.

In conclusion, it is unlikely that complete prevention of brown recluse infestation can be achieved in the Ozark region with respect to any buildings of typical construction, even if such buildings were subject to extraordinary sanitation and chemical control practices. These chemicals are presently judged "probably hazardous to humans" in excessive amounts and we must, therefore, wonder if chronic fumigation is not more of a peril than the spiders.

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AZAM ANWAR *and*
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Alcoholic Ketoacidosis

Ketoacidosis in adults is usually caused by uncontrolled diabetes mellitus. Alcohol induced ketoacidosis, however, is a frequent form of ketoacidosis, particularly in large city hospitals. This condition is often unrecognized because of lack of knowledge of the entity and the frequently unreactive nitroprusside (acetest) reaction. Once it is diagnosed, this illness can be successfully treated in most cases.

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KETOACIDOSIS IN ADULTS is mostly caused by uncontrolled diabetes mellitus. However, as described initially by Dillon and associates in 1940, alcohol-induced ketoacidosis is a frequent form of ketoacidosis, particularly in large city hospitals.[1] This condition is often unrecognized because of lack of knowledge of the entity and the frequently unreactive nitroprusside (acetest) reaction. Once diagnosed, however, this illness can be successfully treated in most cases.

PATHOPHYSIOLOGY

Alcoholic ketoacidosis is the end product of the accumulation of the hydrogen ion-donating ketone bodies, betahydroxybutyrate and acetoacetate secondary to the effects of alcohol and starvation on intermediary metabolism. Alcohol is oxidized to acetaldehyde which is subsequently converted to acetate (Fig. 1). Acetycoenzyme A is produced from the acetate. Increased levels of acetylocoenzyme A inhibit lipolysis which provides substrate for ketone production. This biochemical process may be the reason that alcoholic ketoacidosis is most frequently seen one to three days after alcohol abstinence or decreased intake.

In other words, alcohol, or more specifically acetylcoenzyme A, serves as a possible protective factor against ketoacidosis.[2] During these oxidative processes the NADH/NAD ratio is increased leading to a decrease in hepatic gluconeogenesis. Since caloric intake (besides alcohol) is minimal during most drinking binges, hepatic glycogen stores are rapidly depleted and this, when coupled with decreased hepatic gluconeogenesis, gives an explanation for the frequent hypoglycemia in alcoholic ketoacidosis.

High levels of NADH remain in chronic alcoholics even if they abstain from alcohol consumption for a few days. Insulin levels are decreased in alcoholic ketoacidosis while cortisol and growth hormone levels are increased.[3] These changes in hormonal milieu cause increased lipolysis, increased production of the hydrogen ion donating ketone bodies betahydroxybutyrate and acetoacetate, and decreased ketone metabolism. In addition, acetone, a neutral ketone body, is produced (Fig. 2). Other organic acids, namely metabolites of tyrosine and other amino acids, have been reported to contribute to the acidotic state.[4]

In summary, alcoholic ketoacidosis classically occurs in those who have decreased their alcohol and food intake for several days. The damaged liver of the alcoholic is unable to provide adequate amounts of glucose for energy. Therefore, lypolysis, leading to ketone body production, must replace the energy deficits. As a result, excessive generation of several hydrogen ion donating ketone bodies causes ketoacidosis.

CLINICAL PRESENTATION

Alcoholic ketoacidosis classically occurs in chronic drinkers who, because of severe nausea, vomiting and abdominal pain, have decreased their intake of food and alcohol for several days. Although this illness originally occurred predominantly in women, the sex ratio is now thought to be more even. Persons of any age may be affected as well as first-time drinkers, especially if their food intake is minimal. Many patients with alcoholic ketoacidosis will have symptoms of an intercurrent illness, particularly gastrointestinal bleeding, bacterial infection, pancreatitis and alcohol withdrawal. Diagnosis and treatment of any intercurrent illness is paramount since most of the morbidity and mortality is secondary to these illnesses and not the acid-base disturbance.

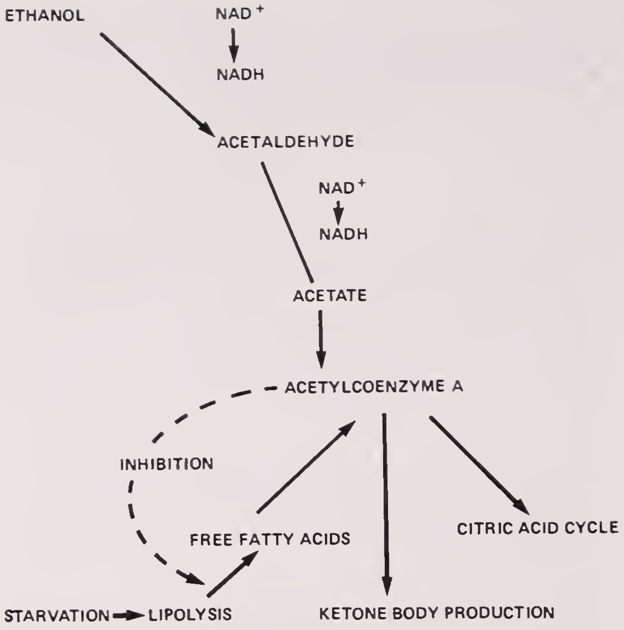
ETHANOL
NAD+
NADH
ACETALDEHYDE
NAD+
NADH
ACETATE
ACETYLCOENZYME A
INHIBITION
FREE FATTY ACIDS
CITRIC ACID CYCLE
STARVATION
LIPOLYSIS
KETONE BODY PRODUCTION

Fig. 1 Ethanol Metabolism.

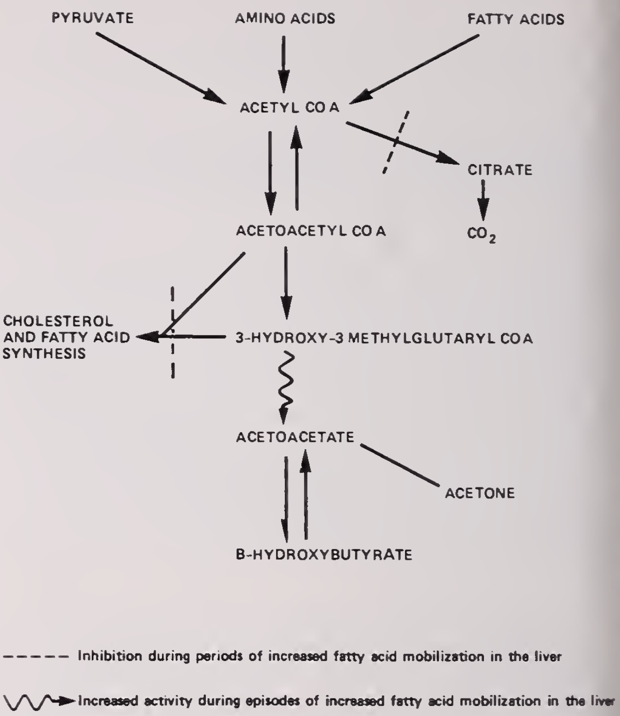
PYRUVATE
AMINO ACIDS
FATTY ACIDS
ACETYL CO A
CITRATE
CO2
ACETOACETYL CO A
CHOLESTEROL AND FATTY ACID SYNTHESIS
3-HYDROXY-3 METHYLGLUTARYL CO A
ACETOACETATE
ACETONE
B-HYDROXYBUTYRATE
Inhibition during periods of increased fatty acid mobilization in the liver
Increased activity during episodes of increased fatty acid mobilization in the liver

Fig. 2 Ketone Production.

Physical examination usually reveals stigamata of chronic alcoholism associated with evidence of intravascular volume depletion and signs of intercurrent illness. It is important to realize that many patients with alcoholic ketoacidosis are hypothermic. Thus, a patient with a normal temperature may be "inappropriately" high.

Laboratory Presentation

Laboratory data in alcoholic ketoacidosis revolve around ketone and glucose levels (Table 1). Urinary and serum ketones are measured by the nitroprusside (acetest) reaction which detects acetoacetate and acetone but does not measure betahydroxybutyrate. In alcoholic ketoacidosis, the betahydroxybutyrate to acetoacetic ratio (B/A) may be higher than the same ratio in diabetic ketoacidosis.[3, 5] Therefore, the severity of the acid-base disturbance in alcoholic ketoacidosis may be underestimated or not recognized. This may explain why some early reviews stated that alcoholic ketoacidosis is an uncommon entity.[3, 6]

It has been suggested that the high B/A ratio is caused by the elevated levels of NADH which reduces acetoacetate to betahydroxybutyrate.[7] As the ketoacidosis resolves, betahydroxybutyrate is oxidized to acetoacetate and later to acetone. Thus, the nitroprusside (acetest) reaction, as in diabetic ketoacidosis, may paradoxically worsen as the patient is clinically and biochemically improving.

The serum glucose level in alcoholic ketoacidosis is usually normal or slightly elevated. Glycosuria is generally absent and hypoglycemia is not uncommon. Platia and Hsu reported five hypoglycemic patients with alcoholic ketoacidosis.[6] In addition, Dillon and associates found several hypoglycemic patients.[1]

Hypothermia is particularly common in hypoglycemic patients with alcoholic ketoacidosis.[8] Acid-base disturbances are common. Acidemia (simple metabolic acidosis) is usually present, although alkalemia (mixed metabolic acidosis and respiratory and/or metabolic alkalosis) was present in seven of 24 cases reviewed by Fullop and Hoberman.[9] Metabolic alkalosis is frequently caused by vomiting, whereas respiratory alkalosis is often secondary to fever, alcohol withdrawal or sepsis. The usual acidemic situation presents with decreased levels of serum bicarbonate, decreased partial pressure of arterial carbon dioxide and an increased anion gap[10] (Normal anion gap = $[Na+] - [Cl \mp HCO_3^-] = 12 \pm 2$ mEq/liter).

Ethanol levels are usually low or undetectable as alcohol intake has been discontinued or drastically reduced for several days. However, if ethanol levels are increased, one should suspect lactic acidosis as a major contribution to the acidosis. Lactate levels have been shown to be increased in alcoholic ketoacidosis, although in most cases, not to such a level as to be a major cause of the acid-base disturbance.[6] Several associated labora-

TABLE 1
REVIEW OF LABORATORY PRESENTATION

	Fulop (10)	*Levy (6)*	*Platia (8)*	*Cooperman (3)*
Number of cases	**24**	**5 (6)**[a]	**5**	**6 (7)**[a]
Male to female ratio	**17 : 7**	**3 : 2**	**5 : 0**	**0 : 6**
Mean arterial Ph	**7.33**	**7.16**	**7.19**	**7.25**
Mean Serum Glucose (mg/100ml)	**100**	**164**	**23**	**143**
Urinary ketone range	**0-4^{+}**	**0-3^{+}**	**3 Cases +** **2 Cases –**	**N/A**
Serum ketone range	**0-Large**	**0-3^{+}**	**3 Cases +** **2 Cases –**	**Small**
Mean anion gap	**N/A**	**25.3**[b]	**25**[c]	**18**[b]

a — one patient presented twice with ketoacidosis.
b — Anion gap = Na – (Cl + HC$_3$ + 15).
c — Anion gap = Na + K – (HCO$_3$ + Cl).

tory abnormalities may be seen. For example, liver enzymes may reflect hepatic damage and pancreatic injury may be indicated by elevated amylase and lipase levels although it has been reported that high amylase levels in alcoholics may be of salivary origin.[11] Anemia and leucocytosis are frequent. Elevated blood urea nitrogen may be indicative of volume depletion or upper gastrointestinal bleeding, whereas a low blood urea nitrogen may signify prolonged starvation or severe hepatic dysfunction.

Treatment

Once recognized, uncomplicated alcoholic ketoacidosis may be treated with simple measures. The main objectives are the repletion of intravascular volume and administration of adequate amounts of glucose. Insulin administration is generally not needed except in the diabetic patient with concurrent alcoholic ketoacidosis. In these individuals, insulin administration may not be needed until the intravascular volume is restored and glucose is given.

Guidelines for bicarbonate administration are similar to diabetic ketoacidosis and, in most instances, bicarbonate therapy is not needed. Miller and associates have shown that the patients treated with saline and glucose respond more rapidly than those who are given saline alone.[12] Most patients correct their acidosis in a 12- to 18-hour period if given adequate amounts of glucose and saline.[3, 7] Any intercurrent illness should be treated vigorously.

Recently, the role of phosphorous has been receiving much attention. Miller and associates have shown that phosphorous levels decline after glucose administration in patients with alcoholic ketoacidosis.[12] In addition, Juan and Elrazak report that 45% of cases of hypophosphatemia in hospitalized patients was secondary to carbohydrate administration.[13] Other causes of hypophosphatemia in alcoholic ketoacidosis include vomiting, starvation and respiratory alkalosis.

It has been suggested that phosphate levels should be maintained above 1 mEq/liter, as concentrations below this level have deleterious effects on tissue oxygenation, cardiac output, neutrophil function and respiratory function.[14-17] Guidelines for phosphate administration have been developed by Lentz and associates.[18]

Alcoholic ketoacidosis is a common clinical entity particularly in large city hospitals.[3] Classically, the chronic alcoholic presents with nausea, vomiting and abdominal pain which have forced him to abstain from alcohol and food consumption for several days prior to presentation. Many patients have intercurrent illness, such as gastrointestinal bleeding, pancreatitis or bacterial infection. Laboratory data usually reveal a metabolic acidosis, a negative or weakly positive nitroprusside (acetest reaction) and a normal plasma glucose. Uncomplicated alcoholic ketoacidosis is simply managed with saline and glucose administration. Insulin and bicarbonate therapy is generally not needed. Most of the morbidity and mortality of alcoholic ketoacidosis relates to intercurrent illness and not to the acid-base disturbance.

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Brown Recluse Spider Bites

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1981 Benefit Auction a Success!

The Missouri State Medical Foundation (MSMF) and American Medical Association Education-Research Foundation (AMA-ERF) have benefited again from the efforts of the MSMA Auxiliary.

Proceeds from the 1981 MSMF/AMA-ERF Benefit Auction for the two funds in April again exceeded $8,000. This brings the three-year total to approximately $26,000.

The auction, which is held on Thursday evening during the MSMA Annual Session, is co-sponsored by the MSMA and Auxiliary. However, it is produced by members of the MSMA Auxiliary who plan the auction, secure the auctioneers, collect the donated items, handle the business aspects of the event and serve auction guests during the evening.

In addition to Mrs. A. J. Campbell, MSMF chairman, and Mrs. Clyde Martin, AMA-ERF chairman, 23 Auxiliary members from throughout the state assisted at the 1981 event in St. Louis.

ROBERT T. HALL, M.D., *Kansas City and*
LARRY D. JONES, M.A., *Jefferson City*

Effect of Missouri High Risk Maternity and Child Care Program on Perinatal Mortality

The Missouri High Risk Maternity and Child Care Program was established by the Missouri legislature in August, 1974 (House Bill 1686) to reduce the incidence of perinatal mortality and morbidity, and in particular, to reduce the incidence of mental retardation.[1] The major goal, as set forth in the legislation, is "to provide medical, surgical, corrective or diagnostic procedures, hospitalization and/or related activity to correct high risk conditions including all things reasonably incident and necessary to make the service available to a woman of child bearing age who has any condition or is at risk of developing some condition, medical or otherwise known to predispose to premature birth or to produce mental retardation; or to any infant or child who has any condition, or is at risk of developing some condition, medically known to predispose to mental retardation."[1]

The policies for the High Risk Maternity and Child Care Program are developed within the Division of Health by advisory committees as established by the legislation and approved by the Department of Social Services. The methodology for goal achievement includes the following: (1) Early identification of high risk mothers and infants; (2) Providing funds for specialized prenatal and obstetrical care for mothers with high risk conditions in consultation with board eligible or board certified obstetricians and pediatricians; (3) Providing funds for specialized neonatal care for infants with high risk conditions by board eligible or board certified pediatricians; (4) Establishing referral mechanisms by family practitioners to facilitate consultation and timely transfer of patients when necessary to facilities with the ability to provide the level of care needed; (5) Providing financial support for fetal ultrasonography for early identification of high-risk conditions; (6) Support of professionals at treatment centers providing perinatal care through educational and special facilities grants; (7) Follow-up of high risk infants upon their return to the community; (8) Collection of data for evaluation of program impact.

The obstetrical program accepts applications for patients to receive services under the obstetrical component of the program with the following diagnoses: (1) Antepartum hemorrhage after 20-weeks gestation; (2) Multiple pregnancy; (3) Severe diabetes mellitus (classes B through R only, White's criteria); (4) Premature rupture of membranes prior to the onset of labor with a latent period of at least 12 hours before delivery and before the 37th week of gestation; (5) Rh and other isoimmunization; (6) Severe hypertensive disease of pregnancy diagnosed prior to the onset of labor (ACOG standards).

Patients with one or more of the six obstetrical conditions are identified by their physicians and referred to the Missouri High Risk Maternity and Child Care Program. Patients meeting both medical and financial criteria set by the advisory committee are approved for care as long as funding for the program is sufficient. The family physician mobilizes the professional support network by consulting with a board certified or eligible obstetrician and pediatrician at an approved obstetrical center. All licensed hospitals in the state of Missouri delivering more than 400 infants per year were invited to participate at the time of the inception of the program and were approved upon receipt of a letter of intent which identified board eligible or certified obstetricians and

This article deals with the Missouri High Risk Maternity and Child Care Program on Perinatal Mortality from 1976 to 1978 and presents a comparison of adequacy of prenatal care and perinatal mortality rates among infants in the High-Risk Program with the period of 1973-1975. The data indicate that there have been significant improvements attributable to the program.

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pediatricians. Together, these physicians prepare a treatment plan designed to provide the best care possible for both mother and baby. The local health department is notified of the high risk pregnancy and becomes part of the care team through support services such as nutritional programs, nursing visits, follow-up evaluation and referrals for other services available in the community.

The pediatric program accepts applications for infants who weigh between 800-2,000 gm and who suffer from severe Respiratory Distress Syndrome. In addition, all infants born to mothers who have been approved for care are automatically enrolled. The family physician or pediatrician identifies the high risk condition and refers the infant to one of the approved pediatric facilities for further care. Seven hospitals with special care nurseries attended by board eligible or certified pediatricians and favorably distributed geographically within the state were initially approved to provide services. Approved patients are assured that financial assistance will be provided for the specialized care needed throughout the perinatal period.

In addition to obstetrical and pediatric care, the Missouri High Risk Maternal and Child Care Program also provides funding for transportation of both mothers and infants by means of a "vendor payment plan for emergency ambulance service" for all financially eligible patients referred from one hospital to another for more specialized care. In the case of the newborn, the return transportation to the originating hospital, or where appropriate to an intermediate care hospital nearest the patient's home, is provided. The program also provides ultrasound services, outreach educational programs and special services and facilities to augment the program in areas of need.

TABLE I
MISSOURI HIGH RISK MATERNITY AND CHILD CARE PROGRAM

Diagnosis	*No. Approved Cases in Fiscal Year* *1976*	*1977*	*1978*
Maternal			
Hemorrhage	12	27	64
Multiple pregnancy	8	23	37
PROM	7	51	77
Diabetes	18	33	62
Blood incompatibility	3	5	22
Hypertension	23	143	202
Total obstetrical	71	282	464
Infant			
RDS	63	209	88
Totals	134	491	552

The purpose of this report is to examine the influence of the Missouri High Risk Maternity and Child Care Program on perinatal mortality and the adequacy of prenatal care among the high risk population. Adequate prenatal care is defined by care starting before the end of the fourth month of pregnancy and an adequate number of prenatal visits (determined in part by the length of gestation). Medical complications of pregnancy and prenatal care are reported on birth certificates and were retrieved by the Missouri Division of Health, Center for Health Statistics.[2] Studies have shown that complications of pregnancy are underreported by as much as 30%. However, the reporting methods remained constant throughout the study period and are probably homogeneous.

The program started receiving applications in November, 1975. Data regarding the number of patients with high risk maternity and child care conditions whose applications were received were tabulated by the Division of Health.[2] Patients with one of the six high risk obstetrical conditions are referred to as the High Risk population.

Results

The number of patients approved from fiscal years 1976 through 1978 by diagnoses appear in Table 1. Both obstetric- and pediatric-approved referrals increased yearly and were represented by each region and county of the state in proportion to the total number of deliveries. This is due, in part, to increased funding during this period and, also, to increased awareness and acceptance of the program.

In order to analyze the influence of the High Risk Maternity and Child Care Program on perinatal mortality, weight-specific perinatal mortality and adequacy of prenatal care, the following procedure was employed.

Missouri resident pregnancies recorded in Missouri for the 1973-1978 period were used as the total population. This was divided into four groups as follows:

PRIOR TO PROGRAM START UP

1. HIGH RISK Pregnancies occurring during the 1973-1975 period when their birth, fetal or neonatal death certificates noted one or more of the six conditions

TABLE 2

HIGH RISK AND NON-HIGH RISK PERINATAL DEATH RATES PRIOR TO AND AFTER THE START UP OF THE HIGH RISK MATERNITY AND CHILD CARE PROGRAM

Missouri Residents Recorded in Missouri

	1973-1975	*1976-1978*	*Percent Difference*	*P*
High risk group				
Pregnancies	12,033	13,300		
Perinatal deaths	1,241	1,224		
Perinatal death rate	103.1	92.0	10.8 ↓	<.01
Non-high risk group				
Pregnancies	184,440	194,315		
Perinatal deaths	2,693	2,668		
Perinatal death rate	14.6	13.7	6.2 ↓	<.05

covered by the Missouri High Risk Maternity and Child Care Program.

2. NON-HIGH RISK Pregnancies occurring during the 1973-1975 period when their birth, fetal or neonatal death certificate did not note one of the six conditions covered by the Missouri High Risk Maternity and Child Care Program.

AFTER PROGRAM START UP

3. HIGH RISK Pregnancies occurring during the 1976-1978 period when their birth, fetal or neonatal death certificates noted one or more of the six conditions covered by the Missouri High Risk Maternity and Child Care Program.
4. NON-HIGH RISK Pregnancies occurring during the 1976-1978 period where their birth, fetal or neonatal death certificates did not note one or more of the six conditions covered by the Missouri High Risk Maternity and Child Care Program.

Table 2 shows that the High Risk group perinatal mortality dropped from 103.1 to 92.0 perinatal deaths per 1,000 pregnancies (live births plus fetal deaths) for a reduction of 10.8%. This change was significant at the .01 level.

The Non-High Risk group perinatal mortality dropped from 14.6 to 13.7 perinatal deaths per 1,000 pregnancies for a reduction of 6.2% which was significant at the .05 level. The reduction of perinatal mortality was significantly improved in both groups, but was greater among the High Risk group.

Table 3 shows weight-specific perinatal death rates for each group, prior to and after the Missouri High Risk Maternity and Child Care Program started. For all weight categories the per-

TABLE 3

WEIGHT-SPECIFIC PERINATAL DEATH RATES FOR HIGH RISK AND NON-HIGH RISK PREGNANCIES — 1973-1975 COMPARED TO 1976-1978

Missouri Residents Recorded in Missouri

	1973-1975			*1976-1978*				
Weight Group (Grams)	*Pregnancies*	*Perinatal Deaths*	*Perinatal Death Rate*	*Pregnancies*	*Perinatal Deaths*	*Perinatal Death Rate*	*Percent Difference*	*P*
High risk group								
501-1,500	944	589	623.9	1,078	616	571.4	8.4 ↓	<.01
1,501-2,500	3,206	267	83.3	3,381	255	75.4	9.5 ↓	NS
2,501-3,500	5,427	110	20.3	5,895	93	15.8	22.2 ↓	NS
>3,500	2,219	58	26.1	2,700	38	14.1	46.0 ↓	<.01
Non-high risk group								
501-1,500	1,424	923	648.2	1,531	956	624.4	3.7 ↓	NS
1,501-2,500	9,047	556	61.5	9,107	547	60.1	2.3 ↓	NS
2,501-3,500	101,055	617	6.1	103,261	584	5.7	6.6 ↓	NS
> 3,500	72,469	272	3.8	80,032	262	3.3	13.2 ↓	NS

TABLE 4
HIGH RISK AND NON-HIGH RISK PREGNANCIES RECEIVING ADEQUATE PRENATAL CARE PRIOR TO AND AFTER THE START UP OF THE HIGH RISK MATERNITY AND CHILD CARE PROGRAM
Missouri Residents Recorded in Missouri

	Before Program Started 1973-1975			*After Program Start Up 1976-1978*				
	Total Pregnancies	*Adequate Care*	*Percent With Adequate Care*	*Total Pregnancies*	*Adequate Care*	*Percent With Adequate Care*	*Percent Difference*	*P*
High risk	12,033	8,419	70.0	13,300	10,049	75.6	8.0 ↑	<.05
Non-high risk	184,440	139,522	75.6	194,315	155,292	79.9	5.7 ↑	<.05

cent reduction in perinatal mortality was greater for the High Risk group.

The only reductions that were significant occurred for the High Risk group. Their weight categories of 501-1,500 and > 3,500 gm had significant reductions in perinatal death rates at the .05 and .01 levels, respectively.

Table 4 shows the percentage of pregnancies receiving adequate prenatal care in both the High Risk and Non-High Risk groups prior to and after the start up of the Missouri High Risk Maternity and Child Care Program. There has been an increase in adequate prenatal care for both groups. The percent increases for the High Risk and Non-High Risk groups were 8.0 and 5.7 respectively.

DISCUSSION

The data in the present study indicate that both total and weight specific perinatal mortality have decreased in the state of Missouri since the advent of the High Risk Maternity and Child Care Program. The most significant changes have occurred among the high risk population which has been served by the program during the last three years of the study. In conjunction with the reduction of perinatal mortality, there has been an increase in adequacy of prenatal care with gains being greater among the high risk population. These data indicate that improvement in both perinatal mortality and prenatal care may be partially attributed to the efficacy of the program in delivering and improving obstetrical and pediatric care.

The initial goal of the Missouri High Risk Maternity and Child Care Program is to reduce the incidence of perinatal mortality. In general, improvements of mortality are accompanied by reduction of morbidity. Several long-term studies reveal reductions in morbidity with improved obstetrical and neonatal care.[3-5] Additional data and improved funding for the Missouri High Risk Maternity and Infant Care Program will be necessary to demonstrate this effect in the Missouri infant population. However, 1,625 infants have been evaluated by pre-Denver questionnaires or Denver developmental screening tests through June 20, 1980 and only 92 have been identified as having abnormally low scores (7%).

Preliminary data from 1979 (during which time funding was reduced) indicate that the number of obstetrical referrals increased from 608 in 1978 to 790 with 573 approvals and 143 disapprovals because of lack of funds.[2] During that same year, there were 266 pediatric referrals with 100 approved and 73 disapproved because of lack of funds.

Continued efforts at reduction of perinatal morbidity and mortality through the Missouri High Risk Maternity and Child Care Program appear justified. Additional strategies need to be developed to reduce the incidence of premature births.

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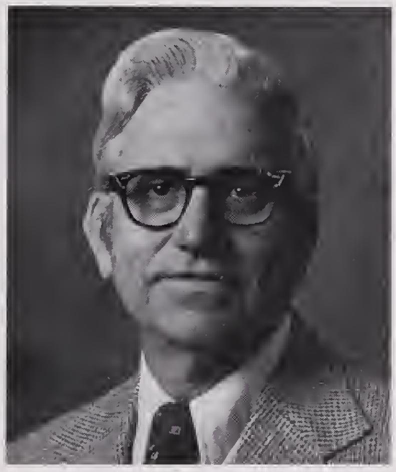
Reprints: Robert T. Hall, M.D.
The Children's Mercy Hospital
24th at Gillham Rd.
Kansas City, MO 64108

President's Message

The American people want the best treatment from physicians and hospitals but at bargain-basement prices. We physicians are taught and rightly so, I think, to give our best to every patient we see. Impasse . . . yes, probably so . . . but I plan not to yield my idea of giving the best care I can to every patient I see. I don't want to be treated by a physician who thinks otherwise.

Every year, the MSMA suffers "slings and arrows" at the state legislature in attempts to keep sick people from being treated by those seeking legal rights to practice medicine without being physicians. Are we our brother's keeper? I guess so. Anyway, I want to protect those who are unable to protect themselves from any misfortune. We just have to pull out the arrows and plod ahead.



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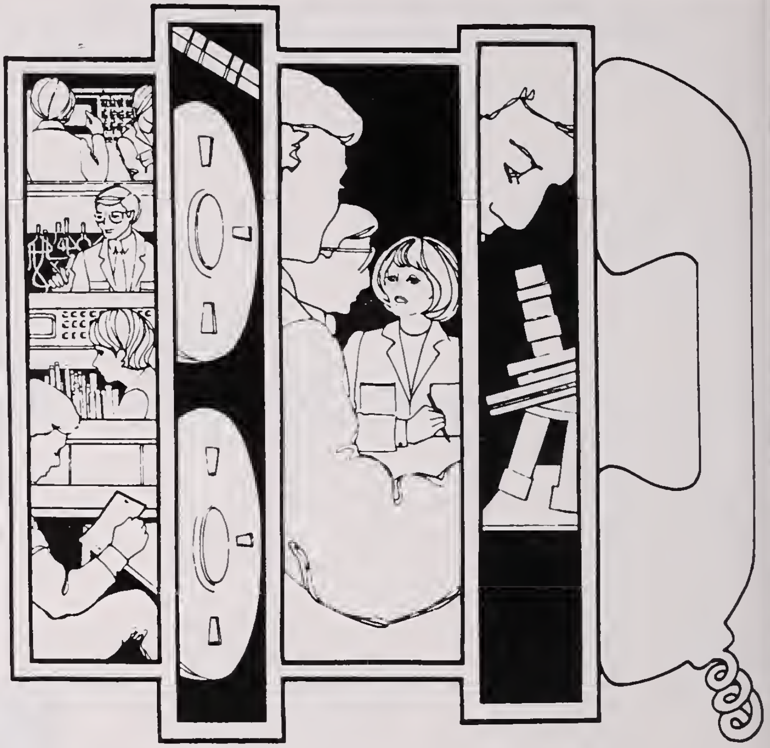

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MSMA Auxiliary

'Then give to the world the best you have
and the best will come back to you.'

One of the new president's tasks is to select a theme for the year. It may refer to an area in which she has a special interest, be about a person she respects or, maybe, express her outlook on life. The latter is the basis for my theme. I have always felt that when you take the time to meet other people, find out their feelings and learn to work together, you have fully enriched your life.

As I begin this year as president of the Missouri State Medical Association Auxiliary, I have a wide range of emotions. Of course, I am honored. Then comes the fear of inadequacy, followed by realizing the tremendous responsibility, but I am eager to begin. The thoughts of new friends to be made, visiting the county auxiliaries on their home turf and knowing there are those who have traveled before who will lend a helping hand if it is needed, make me realize how fortunate I am to have this opportunity to serve the Auxiliary.

As I perform the duties of the president, I know that everything will be running smoothly on the home front. My husband, Jerry, has always been beside me in any endeavor that I undertake. We have two young daughters who are learning to cook, wash, clean and practice the piano without assistance. It is much easier to be away from home when you know that the everyday tasks are being performed by such well-trained professionals.

Mrs. Jerry Meyer
President

The various county medical auxiliaries of Missouri have many projects. They are different, depending on the size of the county, the city and the auxiliary membership. Each has much to contribute to the state and to the MSMA.

If a county auxiliary needs assistance, the AMA Auxiliary is only a letter or phone call away. Our state organization is the link that holds the chain together by keeping members informed through our *Auxiligram*, by trying new programs each year and being available to the county auxiliaries if they need assistance.

As we start this new year, I hope that by working together — county, state and national — we can make our auxiliaries stronger, attract new members, have interesting projects to retain present members and have the feeling that "if you give the world the best you have, the best will come back to you."

medical melange

Notes of interest from Here . . . . and There

Dr. T. Reed Maxson, Warrensburg, was one of two physicians to be awarded the honorary title of "Fellow Distinguished" by the American College of Allergists at the organization's 37th Annual Congress in Washington, D. C. on April 4-8. He was selected for the honor by the Scientific and Educational Council of the College for his contributions to the field of allergy practice and for his work in developing postgraduation education programs for his fellow clinicians. Dr. Maxson has completed a term on the Board of Regents and was chairman of the Bylaws Committee of the College. He also served on the 1980-1981 council of the *Annals of Allergy,* the official scientific journal, and is a member of the College's International Committee.

Dr. John M. Laird, St. Louis, has been renamed to the advisory board of the Community Health and Medical Care Department by St. Louis County executive Gene McNary. Dr. Laird is a past-president of the St. Louis County Medical Society and served as chief-of-staff at Christian Hospital Northeast-Northwest in 1979.

March 22, 1981 was "**Dr. Jordan Day**" in Waverly. The day was presented by Xi Zeta Chapter, Beta Sigma Psi sorority to honor "an outstanding citizen of the community" in observance of **Dr. and Mrs. Jordan Kelling**'s gold anniversary year and to cite Dr. Kelling's contributions to Waverly. Highlights of the afternoon were the presentation of a Missouri House of Representative's resolution naming Dr. Kelling as "an outstanding member of his community, state and nation" by Rep. David Rauch of Higginsville: a Missouri Senate resolution by Sen. David Doctorian of Macon; and letters of congratulations from Gov. Kit Bond and U. S. Congressmen Thomas Eagleton and John Danforth. Citizens of approximately 20 surrounding communities have been served by the first Kelling Hospital built in 1939 and the second hospital built in 1960, both of which were built entirely with family resources and without government subsidies, grants or aids. Dr. Kelling has been in private practice since 1933.

The Sedalia Chamber of Commerce presented its "Outstanding Citizen Award" to **Dr. Albert R. Maddox** at its annual banquet recently. Dr. Maddox was cited for his numerous contributions on behalf of the community over the years in such areas as the Salvation Army, United Way, Sedalia Housing Corporation and the Minniola Day Nursery. The Chamber also cited his services in his profession, church and the Chamber. Dr. Maddox retired last year after 50 years in the practice of medicine.

Continuing
Medical Education
AWARD

MSMA Members Receive Physician's Recognition Award

One hundred and two MSMA members qualified for the MSMA-AMA Physician's Recognition Award in March, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

Nancy L. Abdou, Kansas City
Raymond B. Anderson, Kansas City
Howard J. Aylward, St. Louis
Hubert H. Bell, Kansas City
Jon R. Bopp, Joplin
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Edward Gwin, Springfield
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Carroll R. Markivee, St. Louis
Catalino V. Martin, Kansas City
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in Brief

A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

MANY OF THE PROPOSED national health planning goals are beyond the scope of the health care system and many are already being pursued through other federal programs, the AMA told the Health and Human Services Department. Such goals as reduction of alcohol and drug use, reduction of homicides and reduction of household accidents are beyond the reach of health system agencies and the nation's health care delivery system, the Association said. The AMA said it maintains a strong interest in constructively participating in the promulgation of planning policies, even though it believes the Health Planning Act should be repealed. The AMA urged HHS to modify any final set of goals to address only those goals that are feasible and that can be achieved by HSAs within their statutory mandates.

"WE URGE THAT FDA DEVISE a means to implement the AMA recommendation to establish a 'special category drug/agent committee' to accept and apply the investigative work of selected foreign governments and agencies to meet the U. S. criteria for approval or disapproval of an agent or drug," the AMA said in a letter to the Food and Drug Administration. The AMA noted that its policy, adopted at its 1980 Annual Meeting, is in keeping with recent recommendations of both the General Accounting Office and the House Subcommittee on Science, Research and Technology.

THE AMA'S ROLE IN STRENGTHENING risk management programs is being studied by an eight-member task force. The group will consider steps the AMA can take to broaden general awareness of the potential for injury in medical procedures and to develop cooperative efforts with state medical associations and their professional liability carriers to reduce the incidence of such injuries. Chairman of the task force is Dick Layton, vice-president and general manager of the American Medical Assurance Co. The first phase of the task force study will be a survey to determine what risk management programs are being conducted by state medical associations and medical liability insurance carriers. The questionnaire was mailed to executive directors of all state medical associations.

MODEL LEGISLATION DEFINING DEATH has been forwarded by the AMA to state medical associations. The model act states that an individual who has sustained irreversible cessation of circulatory and respiratory functions or irreversible cessation of functioning of the entire brain is to be considered dead, and that determination of death by a physician is to be made only in accordance with accepted medical standards. The model bill was adopted by the House of Delegates a year ago and was amended at the 1979 Interim Meeting. Legislation concerning brain death has been adopted by 25 states.

PRACTICE EXPENSES AND GROSS INCOME more than doubled during the 1970s, with the proportion of practice expenses to gross income rising. These and other changes in average income, expenses, fees, visits, hours worked, and waiting time for the typical office-based U. S. physician were documented by AMA staff and are described in the article, "Physicians' Practice Experience During the Decade of the 1970s." Originally published as a special communication in the Dec. 5, 1980, issue of *JAMA*, the article is now available in complimentary booklet form from the Center for Health Services Research and Development, AMA Headquarters.

A PROPOSED RULE THAT WOULD REQUIRE medical device manufacturers, distributors and importers to report to the Food and Drug Administration all post-market contacts with device purchasers or users should be narrowed, the AMA said. "We do not believe that all 'remedial actions' taken with respect to a device necessarily need to be reported to and reviewed by the FDA," the AMA said in a letter to the agency. The Association expressed support for the parts of the proposed rule that require reporting of device deficiencies that may cause injury or death, or that could contribute to inaccurate diagnosis.

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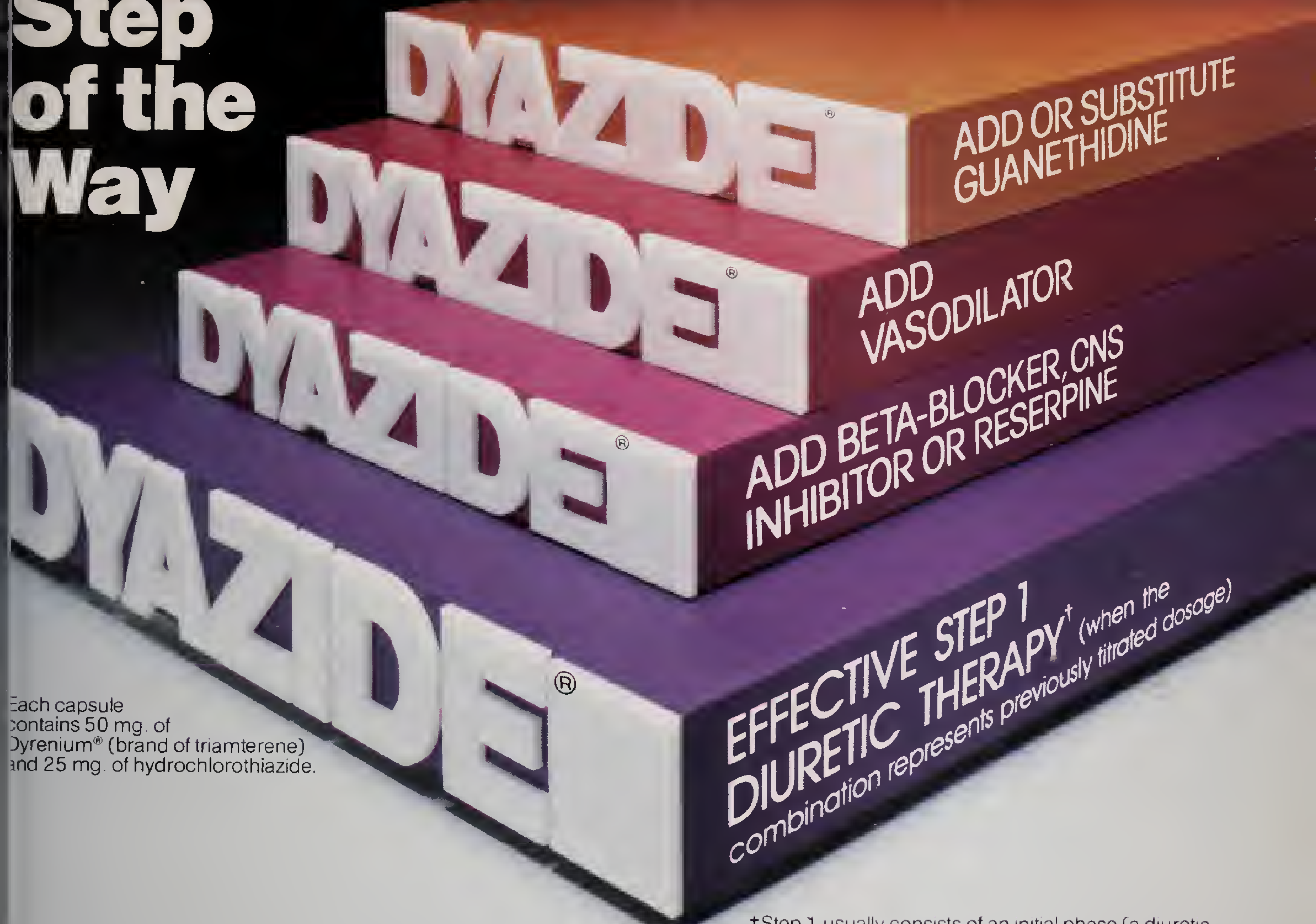
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Before prescribing, see complete prescribing information n SK&F Co. literature or *PDR*. The following is a brief ummary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated erum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used Hyperkalemia can occur, and has been associated with ardiac irregularities It is more likely in the severely ill, with rine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency Periodically, erum K+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood Use in pregnancy requires weighing anticipated benefits against possible hazards, ncluding fetal or neonatal jaundice, thrombocytopenia, other dverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K+ frequently; both can cause K+ retention and elevated serum K+ Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia, although uncommon, has been reported. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established

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Comparison of pain relief
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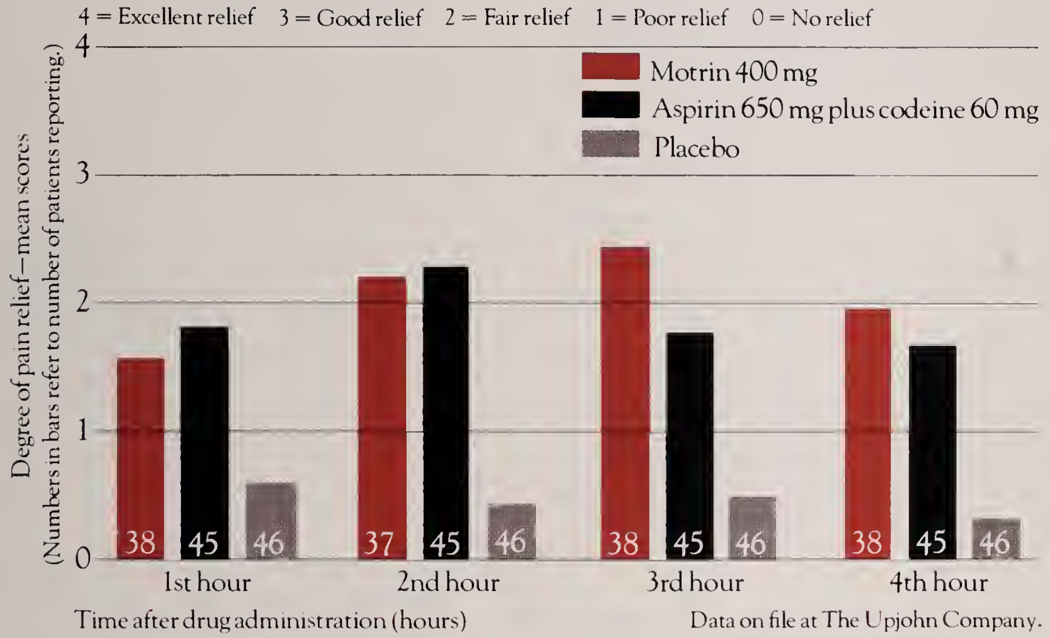

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Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema and bronchospastic reactivity to aspirin or other nonsteroidal anti-inflammatory agents (see WARNINGS).

Warnings: Anaphylactoid reactions have occurred in patients with aspirin hypersensitivity (see CONTRAINDICATIONS).

Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. Motrin should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If Motrin must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue Motrin and the patient should have an ophthalmologic examination, including central visual fields.

Fluid retention and edema have been associated with Motrin; use with caution in patients with a history of cardiac decompensation.

Motrin can inhibit platelet aggregation and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy.

Patients should report signs or symptoms of gastrointestinal ulceration or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema.

To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged corticosteroid therapy should have therapy tapered slowly when Motrin is added.

Drug interactions. *Aspirin:* Used concomitantly may decrease Motrin blood levels. *Coumarin:* Bleeding has been reported in patients taking Motrin and coumarin.

Pregnancy and nursing mothers: Motrin should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

Incidence greater than 1%

Gastrointestinal: The most frequent type of adverse reaction occurring with Motrin is gastrointestinal (4% to 16%). This includes nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of the GI tract (bloating and flatulence). **Central Nervous System:** Dizziness,* headache, nervousness. **Dermatologic:** Rash* (including maculopapular type), pruritus. **Special Senses:** Tinnitus. **Metabolic:** Decreased appetite, edema, fluid retention. Fluid retention generally responds promptly to drug discontinuation (see PRECAUTIONS).

*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: Upper GI ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** Depression, insomnia. **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme. **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure. **Special Senses:** Amblyopia (see PRECAUTIONS). **Hematologic:** Leukopenia, decreased hemoglobin and hematocrit.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities. **Dermatologic:** Alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** Hemolytic anemia, thrombocytopenia, granulocytopenia, bleeding episodes. **Allergic:** Fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** Gynecomastia, hypoglycemia. **Cardiovascular:** Arrhythmias. **Renal:** Decreased creatinine clearance, polyuria, azotemia.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d.
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NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

James H. Freel, M.D., associate professor of obstetrics and gynecology, has received a $25,000 grant for cancer research. *Hubert A. Ritter,* M.D., president of the American Medical Association-Education and Research Foundation (AMA-ERF) and clinical professor of obstetrics and gynecology at the School of Medicine, made the recent presentation of the check.

By implanting cancerous cells from the human cervix into mice, Dr. Freel and his team will study the interaction of radiation therapy and chemotherapy on the growth of these tumors. In addition, these results will be compared to the effect of hyperthermia. Based on these studies, Dr. Freel anticipates new techniques for future treatment of clinical cancer.

This study encompasses the combined efforts of the research teams in the departments of obstetrics/gynecology, pathology, anatomy and radiation oncology. "It is only with the multidisciplinary approach to innovative techniques in the treatment of this disease that a better rate of cure can be anticipated," Dr. Freel adds.

The Education and Research Foundation of the AMA was established in the 1950s to assist in medical education. During the past 30 years, the foundation has annually provided more than $1 million to medical schools on an unrestricted basis. The foundation receives its resources through gifts from physicians and medical auxiliaries. The foundation also maintains a small grant program to assist medical research.

In addition to his position with the AMA-ERF, Dr. Ritter is a member of the board of trustees of the AMA and is in active practice at St. Mary's Health Center.

Eli Maurice Nadel, M.D., 62, assistant vice-president for medical center research, professor of pathology and cancer program coordinator at St. Louis University School of Medicine, died on March 9 following a heart attack.

A well-respected cancer researcher, Dr. Nadel earned his B.S. degree in 1937 and his M.S.Ed. degree in 1939 from the City College of New York. He completed his M.D. degree at the Long Island College of Medicine in 1945.

Hubert A. Ritter, M.D. *(left)*, president of the American Medical Association-Education and Research Foundation (AMA-ERF), presents a $25,000 check for cancer research to James H. Freel, M.D., associate professor of obstetrics and gynecology at St. Louis University School of Medicine.

Dr. Nadel worked at the National Institutes of Health in a variety of laboratory and administrative posts from 1945 until 1965. Before coming to St. Louis University School of Medicine in 1968, he was chief of research in pathology, hematology and laboratory medicine at the central office of the Veterans Administration.

UNIVERSITY OF MISSOURI-KANSAS CITY

Richardson K. Noback, M.D., professor of medicine and senior docent, presented a workshop on "Preventive Emphasis in a Geriatric Curriculum for Medical Students" at the third annual spring conference of the Association of Teachers of Preventive Medicine in Atlanta. Dr. Noback also helped plan the April annual meeting of the American Federation for Aging Research in Kansas City.

James E. Paul, a fourth-year student at the School of Medicine, has received the Dr. Phillip L. Byers Award. Administered by the Eddie Jacobson Memorial Foundation, the award is given annually to a student from year-3 through year-6 who demonstrates high academic performance.

Dr. William Danforth, chancellor of Washington University in St. Louis, delivered the fifth annual Dorothy Lee Ross Lecture on "Medicine in Society" at the School of Medicine. The lecture is part of the school's graduation activities which occurred on May 8-9. Fifty-six students received their degrees from the medical school this year.

Stephen J. Kelly, a sixth-year student, presented a paper on "Effect of Erythromycin on Plasma Theophylline Levels" at the Midwest Student Medical Research Forum at the University of Missouri-Columbia in April.

The UMKC School of Medicine and the W. K. Kellogg Foundation of Battle Creek, Michigan hosted a two-day symposium on April 3-4 at the Medical School. "A Decade of Experience with Cost-Effective Models for Medical Education" provided a forum for medical educators from the United States and Canada to communicate with each other, exchange experiences and share their concerns and goals.

Keynote addresses were made by *Stanley G. Olson*, M.D., emeritus provost and professor of medicine at Northeastern Ohio Universities College of Medicine; *E. Grey Dimond*, M.D., special consultant to the Chancellor at UMKC; *Vernon E. Wilson*, M.D., vice-president for medical affaris at Vanderbilt University School of Medicine; and *Nathan J. Stark*, former undersecretary of the U. S. Department of Health and Human Services. UMKC *Chancellor George A. Russell* also spoke at the symposium.

The School of Medicine alumni, students, parents and friends also gathered that weekend to celebrate the tenth anniversary of the School of Medicine. Fifty parents from the St. Louis and Kansas City Friends of the UMKC School of Medicine were welcomed by *Dean Harry S. Jonas*. They viewed a slide show highlighting people and events in the school's history that day. Later, they were guests at a luncheon and a panel discussion by a docent team, a student and a graduate.

UNIVERSITY OF MISSOURI-COLUMBIA

The University of Missouri-Columbia Alumni Association has honored five people for their contributions to Medicine and to the University.

Dr. James O. Davis, professor and chairman of the Department of Physiology, received a Citation of Merit in Medicine. He was honored for his many contributions in renal physiology, hypertension and heart failure. Before his faculty appointment here in 1966, Davis spent 19 years at the National Heart Institute where he demonstrated the role of the adrenal cortex in salt and water retention in congestive heart failure. In 1959, he discovered the specific renal hormone which stimulates adolsterone production. He is currently president of the International Society for Hypertension. Dr. Davis received three of his five academic degrees from UMC.

Miss Fannie Guthrie, another Columbia resident, was given special recognition for her pioneering work in vascular surgery research with her brother, the late *Dr. Charles C. Guthrie*. She received three degrees from the University between 1905 and 1907.

Dr. Wallace Stacey, an Independence (Mo.) obstetrician and gynecologist, was cited for his service to the University as a member of the board of curators. He was president of the board in 1979. Dr. Stacey received his B.S. degree in Medicine from UMC in 1943.

Dr. Thomas Fleming, Moberly cardiologist and a 1911 UMC graduate, received special recognition for his 66 years as a practicing Missouri physician.

Dr. Richard V. Bradley, St. Louis general surgeon and immediate past-president of the Missouri State Medical Association, was presented an associate membership in the UMC medical alumni association.

The awards were made at the alumni luncheon held in conjunction with the annual meeting of the Missouri State Medical Association in St. Louis in April.

Dr. Syed Arshad Husain, associate professor of child psychiatry, recently took part in the Third International Congress of Psychiatry in Karachi, Pakistan. Dr. Husain conducted a workshop and presented a paper on sexual abuse of children. His trip was sponsored by the Pakistan Psychiatric Association.

Dr. Javad H. N. Kashani, associate professor of child psychiatry, was recently honored by the State Mental Health Commission for his outstanding work as Director of the Children's Inpatient Unit at the Mid-Missouri Mental Health Center.

Dr. Kashani is the first author of an article on depression in children, in the February issue of the "American Journal of Psychiatry." Other authors are *Dr. Syed Arshad Husain; Dr. Walid O. Shekim*, associate professor of child psychiatry; and *Dr. Kay Kline Hodges*, assistant professor of psychiatry.

For the seventh consecutive year, *Gary Dunkerley*, assistant professor of anatomy, has been honored by medical students for excellence in eaching. At the medical school's Spring Honors Convocation on April 6, he received his fifth Golden Apple Award as the outstanding teacher n the bio-medical sciences. He has received special citations twice.

Dr. Clive Levine, associate professor of radiology, received the Golden Apple Award for being udged the outstanding teacher in the clinical areas of medicine. He joined the UMC faculty in uly, 1977 as a Fellow in the Radiology Department and subsequently was appointed to the aculty. He received his medical education at the University of Witwatersrand in South Africa.

Dr. Mitchell Rosenholtz, associate professor of pathology, received the faculty service award given by the Student Advisory Council for dedcation to community and University service, concern for student well-being, teaching excellence and high ethical standards of the medical profession. This is considered the highest award given by the students.

Special service awards were also given by the tudents to *Dr. Beryl Blain*, education specialist, who retired this year, and *Dr. David Klachko*, professor of medicine.

Six medical students were cited for outstanding cholastic achievement during their first two years of medical school. They are *Robin Burton Blount* and *Deborah Erickson*, both of Columbia; *Stephen Smith*, Sikeston; *Mark Winton*, St. Louis; *William G. Peterson*, Kansas City; and *Thomas K. Walsh*, Versailles.

Mrs. Blount received three awards: a scholarship from the *Women's Auxiliary to the Boone County Medical Society;* the Physiology Department award; and shared honors with Winton for he Microbiology Department award.

WASHINGTON UNIVERSITY

William H. Danforth, Chancellor of Washingon University has announced the appointment of *Gerald D. Fischbach*, M.D., as head of the Department of Anatomy and Neurobiology. He also will serve as Edison Professor of Neurobiology.

Dr. Fischbach, a professor of pharmacology at Harvard Medical School, will assume his new duties in St. Louis in the summer of 1981. He will epace *Roy R. Peterson*, Ph.D., professor and cting head of the department.

Dr. Fischbach received his medical training at Cornell University Medical School where he graduated in 1965. He interned at the University of Washington Hospital in Seattle. From 1966 to 1969, Dr. Fischbach was senior surgeon, Public Health Service, Laboratory of Neurophysiology, National Institute of Neurological Diseases and Stroke of the National Institutes of Health. From 1969 to 1973, he was Staff Fellow, Behavioral Biology Branch, National Institute of Child Health. In 1973, he joined Harvard University as an associate professor of pharmacology. He is a member of the Scientific Advisory Board of the National Paraplegia Foundation, the Neurology B Study Section of the NIH and is Clerk of the Corporation of Marine Biology Laboratory in Woods Hole, Mass.

Dr. Fischbach is a pioneer in the development of methods for the study of muscle and nerve cells in tissue culture. He has brought to these studies a unique combination of expertise in electrophysiology and an excellent understanding of cell biology. The major focus of his work has been the study of the formation of synapsis between nerve and muscle, and the development by muscle cells of sensitivity to neurotransmitters, that is, small molecules released from the nerve terminal which activate the muscle cells. His most recent work has resulted in the identification of a substance released from nervous tissue which modulates the differentiation of the muscle cell.

Burton Sobel, M.D., chief in the Division of Cardiology, received the Heart Research Foundation's International Recognition Award at the association's annual meeting on May 7 in New York City. This is the second year the award has been presented. Dr. Sobel was selected to receive the award because of his contributions to cardiac biochemistry and the metabolic aspects of nuclear cardiology.

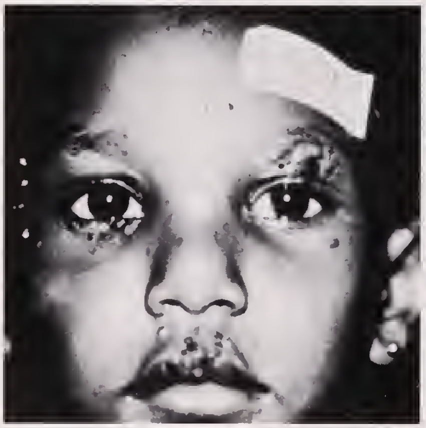
In addition to being a division chief at the School of Medicine, Dr. Sobel is also a professor in the Department of Medicine there and is a staff physician at Barnes Hospital.

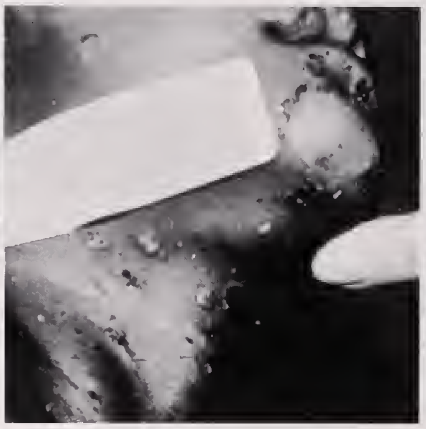
Dr. Sobel received his medical training at Harvard Medical School and was graduated from there magna cum laude in 1962. He then interned and served his residency at The Peter Bent Brigham Hospital in Boston. In 1967-1968, he was a clinical associate, National Heart and Lung Institute (Cardiology Branch) of the National Institutes of Health. He spent the next six years with the University of California at San Diego School of Medicine in the school's cardiac care and myocardial infarction research units. In 1973, Sobel joined Washington University School of Medicine.

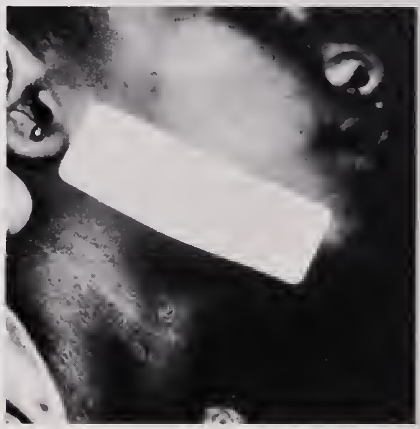
DRAMATIC NEW CLINICAL PROOF*

In the treatment of impetigo-

- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**


As seen on admission


After one week of penicillin V-K therapy


Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

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WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

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Syracuse, New York 13201

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Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

May 28	CT Evaluation of Supratentorial Lesion (Truman Medical Center)
June 5-6	Symposium on Physical Fitness (Crown Center Hotel)
June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)
July 17-19	The Long Weekend: Endocrinology (Four Seasons Resort, Lake of the Ozarks)
Sept. 25-26	The Long Weekend: Cardiovascular Disease and Critical Care (Alameda Plaza Hotel)
Oct. 29-31	Annual Fall Clinical Conference — Kansas City Southwest Clinical Society (Alameda Plaza Hotel)
Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)

Greater Kansas City Radiological Society
KU Medical Center
Rainbow Blvd. at 39th, Kansas City, KS 66103
***Contact:* Norman L. Martin, M.D., President**

May 20	Pediatric Urology (With Greater K.C. Urological Society, Granad Royale Hotel)

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

June 13	Leroy Sante Lecture
Oct. 1-3	50th Anniversary Celebration
Oct. 2	Tenth Annual Wendell G. Scott Lecture

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

May 21-22	Postgraduate Course in Otolaryngology
Nov. 13-15	Eighth Annnual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
Dec. 10-12	Current Concepts in Cancer Therapy

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Aug. 5	Multisystem Trauma

Missouri Perinatal Association
P.O. Box 1431, Jefferson City 65102
***Contact:* Judy Sommers**

Oct. 15-17	Third Annual Meeting — Missouri Perinatal Association (The Ramada Inn, Columbia)

Missouri Chapter, American College of Surgeons
P.O. Box 4562, Springfield 65804
(417) 882-7390
***Contact:* Linda Wheelen, Executive Secretary**

June 19-20	Annual Professional Meeting (Sheraton-West Port Inn, St. Louis)

(Continued on next page)

Continuing Education Coming Events

(Continued from page 264)

University of Missouri School of Medicine Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Aug. 6-7	Fourth Annual Workshop in Soft Tissue Surgery
Aug. 8, 9	Physicians' Update on Emergency Patient Care (Tan-Tar-A, Lake Ozark)
Sept. 10, 11	GI Fall Conference
Oct. 2-4	Missouri Ear, Nose and Throat Society Fall Meeting (Lodge of the Four Seasons, Lake Ozark)
Oct. 23, 24	22nd Annual M.D. Day
Oct. 29-31	Third Annual Advances in Rheumatology Symposium
Nov. 5, 6	M.D. Day West (Hilton Harvest House, Boulder, Colo.)
Nov. 13, 14	Dysphagia Conference
Nov. 18, 19	The Physician and the Infection Control Committee
(1982)	
Feb. 15-17	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10, 11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29, 30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	Group Relations Conference
Apr. 22, 23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

Mrs. Jerry Meyer Installed as MSMA Auxiliary President

Mrs. Jerry Meyer, Concordia, was installed as president of the MSMA Auxiliary at the annual convention held in conjunction with the MSMA Annual Session at the Chase-Park Plaza Hotel in St. Louis on April 9-12.

Before becoming president, Mrs. Meyer had served as the MSMA Auxiliary chairman of legislation, health projects, health education and immunization projects. She also has served as president and secretary of the Lafayette-Ray County Medical Society Auxiliary.

A 1965 graduate of Marshall High School, Mrs. Meyer attended Missouri Valley College in Marshall and the University of Missouri-Columbia. She has served as vice-president, secretary and treasurer of Medical Dames at UMC and as vice-president of Beta Sigma Phi.

Active in community affairs, she has been president of the Concordia Jaycee Wives, vice-president of Region III Jaycee Wives and past secretary of the Community Hospital Auxiliary in Sweet Springs. She was the Concordia Jaycee Wife of 1978 and has served as Concordia Girl Scouts Brownie leader.

Mrs. Meyer is a member of St. Paul's Lutheran Church where she is a Sunday School teacher and member of the choir. She is a member of a Bible study group and is now serving as publicity chairman of the Vacation Bible School. She also serves as a 4-H Club assistant leader and as parliamentarian of the Good Shepherd Home Auxiliary.

Dr. Meyer, who attended the MSMA Annual Session as a delegate from Lafayette-Ray County Medical Society, was elected vice-councilor for the MSMA Sixth District.

Dr. and Mrs. Meyer have two daughters, Julie, 13, and Jennifer, nine years old.

Other Auxiliary officers elected for 1981-1982 are Mrs. Sam Gaston, Joplin, president-elect; Mrs. Donald C. Sanders, Kansas City, first vice-president; Mrs. William Goodson, Jr., Kansas City, second vice-president; Mrs. Richard Bowles, Liberty, third vice-president; Mrs. Clyde V. Martin, Shawnee Mission, Kan., fourth vice-president; Mrs. Curtis Bourgeois, Rocheport, recording secretary; Mrs. James Haddock, Webster Groves, treasurer; Mrs. Eugene Henschel, St. Louis, auditor; Mrs. Robert Pavlu, Carrollton, corresponding secretary; and Mrs. George P. Wilson, Columbia, parliamentarian.

Medical Defense Associates Ltd.

Providing Professional Liability Insurance

1. Who owns Medical Defense Associates, Ltd.?

   Unlike most carriers in Missouri, MDA has no stockholders expecting dividends. As a mutual company MDA is owned by the doctors it insures.

2. How much of MDA's premium dollar goes to profit or stockholders dividends?

   Operating as a non profit mutual we charge only for claims and operations, with no profit consideration.

3. How many insureds does MDA have and how long has it been in business?

   In our sixth year of operation we are presently insuring 1400 doctors.

4. How stable is MDA?

   With assets currently in excess of 13 million dollars, renewing approximately 3 million annually and reinsured by Lloyds of London, MDA is in excellent financial shape.

5. Does MDA take just anyone wishing coverage?

   MDA has declined to insure approximately one in ten applicants in an effort to maintain a conservative underwriting policy and exclude doctors not practicing within an accepted practice profile.

6. What is MDA's attitude toward settlements and defense of claims?

   MDA cannot settle out of court without the doctors written permission. This is in keeping with our policy of aggressive defense on all claims.

7. Can MDA cancel or non-renew a doctor if he has a claim?

   We guarantee against arbitrary cancellation. It is written in our policy.

8. How can I obtain more information on how to join this company?

   The easiest way is to call toll free 1-800-492-7212, or write

Wedgeworth and Company, Ltd.
dba Missouri Malpractice Managers
P.O. Box 3817
Springfield, MO 65804

Examine Me.

During the past several years, I have heard my name mentioned movies, on television and radio talk shows, and even at Senate bcommittee sessions. And I have seen it repeatedly in newspapers, agazines, and yes, best-sellers. Lately, whenever I see or hear the rases "overmedicated society," "overuse," "misuse," and "abuse," my me is one of the reference points. Sometimes even *the* reference point.

These current issues, involving patient compliance or dependency-oneness, should be given careful scrutiny, for they may impede my erall therapeutic usefulness. As you know, a problem almost always volves improper usage. When I am prescribed and taken correctly, an produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examine y merits. Think back on the patients in your practice who have been lped through your clinical counseling and prudent prescriptions for me. nsider your patients with heart problems, G.I. problems, and inter-rsonal problems who, when their anxiety was severe, have been able benefit from the medication choice you've made. Recall how often u've heard, as a result, "Doctor, I don't know what I would have done thout your help."

You and I can feel proud of what we've done together to reduce cessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experience, u'll come away with a confirmation of your knowledge that I *am* a safe d effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepam/ che) Ⓒ, please see the following page. Valium is available as 2-mg, ng and 10-mg scored tablets.

Valium® Ⓘⓥ
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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New Members

Nusrat J. Ahmad, M.D., 2506 Bopp Rd., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Ahmad is a native of India, received his preliminary education at the University of Karachi and his M.D. degree at Khyber Medical College in 1966. He specializes in obstetrics and gynecology.

Mohammad N. Akhter, M.D., Broadway State Office Bldg., Jefferson City 65102, has become a member of Cole County Medical Society. Dr. Akhter is a native of India, received his preliminary education at Government College and his M.D. degree at King Edward Medical College in 1967. He specializes in general preventive medicine.

James D. Bowen, M.D., Lincoln Community Clinic, Lincoln 65338, has become a member of Pettis County Medical Society. Dr. Bowen is a native of Oregon, received his preliminary education at Walla Walla College and his M.D. degree at Loma Linda University in 1966. He specializes in family practice.

Aloysius F. D'Souza, M.D., 1903 E. Mechanic, Harrisonville 64701, has become a member of West Central County Medical Society. Dr. D'Souza is a native of India, received his preliminary education at St. Xavier's College and his M.D. degree at the National Medical College in 1963. He specializes in general surgery.

William D. Dixon, M.D., 4400 Broadway, Suite 316, Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Dixon is a native of Kansas City, received his preliminary education at Vanderbilt University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in internal medicine.

Alan J. Ferber, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Ferber is a native of Brooklyn, N. Y., received his preliminary education at Brandeis University and his M.D. degree at Pennsylvania State University in 1976. He specializes in obstetrics and gynecology.

Jad M. Gennaoui, M.D., St. Anthony's Medical Center, 10010 Kennerly Rd., St. Louis 63128, has become a member of St. Louis Metropolitan Medical Society. Dr. Gennaoui is a native of ebanon, received his preliminary education at ıe French Faculty of Medicine and Pharmacy of eiruit and his M.D. degree at the French Facul- of Medicine and Pharmacy of Beiruit in 1975. le specializes in diagnostic radiology.

John W. Goodwin, M.D., 1211 S. Glenstone, pringfield 65804, has become a member of reene County Medical Society. Dr. Goodwin is native of Parsons, Kan., received his prelimiary education at the University of Arkansas and is M.D. degree at the University of Kansas in 972. He specializes in internal medicine and ncology.

Albert M. Hammerman, M.D., 14240 Fingerıke Dr., Chesterfield 63017, has become a member of St. Louis Metropolitan Medical Society.)r. Hammerman is a native of St. Louis, received is preliminary education at Washington Uniersity and his M.D. degree at Washington Uniersity in 1976. He specializes in radiology.

Gary E. Hirshberg, M.D., 7457 Kingsbury, t. Louis 63130, has become a member of St. ouis Metropolitan Medical Society. Dr. Hirsherg is a native of Quincy, Mass., received his reliminary education at Princeton University nd his M.D. degree at Hahnemann Medical Colge in 1972. He specializes in anesthesiology.

Joseph P. Iser, M.D., Consortium for Health ducation, 2920 McGee Trafficway, Kansas City 4108, has become a member of Jackson County ledical Society. Dr. Iser is a native of Kansas, eceived his preliminary education at the University of Colorado, and his M.D. degree at the niversity of Kansas in 1979. He specializes in ıternal medicine.

William J. Kessler, M.D., 3655 Vista, St. ouis 63110, has become a member of St. Louis letropolitan Medical Society. Dr. Kessler is a ative of Dayton, Ohio, received his preliminary ducation at Canisus College and his M.D. deree at the University of Cincinnati in 1978. He pecializes in ophthalmology.

Nancy A. Kirchmer, M.D., Children's Mercy lospital, Radiology Dept., 24th and Gillham d., Kansas City 64108, has become a member of ackson County Medical Society. Dr. Kirchmer is native of Houston, Tex., received her prelimiary education at the University of Texas and her I.D. degree at the University of Texas in 1973. he specializes in pediatric diagnostic radiology.

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Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.

Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.

Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.

Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.

Pregnancy
See "WARNINGS"

Pediatric Use
Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.

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Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

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Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.

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Preston B. Koprivica, M.D., Consortium for Health Education, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Koprivica is a native of Oceanside, Calif., received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1980. He specializes in emergency medicine.

Jerold E. Lancourt, M.D., 1335 Village Dr., St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Lancourt is a native of New York City, received his preliminary education at the University of Pennsylvania and his M.D. degree at the University of North Carolina in 1968. He specializes in orthopedic surgery.

Henry S. Lawrence, M.D., 1016 Banyon Dr., St. Louis 63126, has become a member of St. Louis Metropolitan Medical Society. Dr. Lawrence is a native of Camden, N. J., received his preliminary education at Muhlenberg College and his M.D. degree at St. Louis University in 1978. He specializes in pediatrics.

Wayne L. Letizia, M.D., 1515 W. Truman Rd., Independence 64050, has become a member of Jackson County Medical Society. Dr. Letizia is a native of Newark, N. J., received his preliminary education at Dartmouth College and his M.D. degree at Cornell University in 1971. He specializes in internal medicine.

John C. Lyskowski, M.D., 1101-A Southwest Blvd., Jefferson City 65101, has become a member of Cole County Medical Society. Dr. Lyskowski is a native of Chicago, Ill., received his preliminary education at Northwestern University and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in psychiatry.

Usha P. Manusmare, M.D., Farmington State Hospital, Farmington 63640, has become a member of Mineral Area Medical Society. Dr. Manusmare is a native of India, received her preliminary education at Pratap College and her M.D. degree at B. J. Medical College in 1969. She specializes in general practice.

Parviz Massarat, M.D., Truman Medical Center, Dept. of Radiology, 2301 Holmes, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Massarat is a native of Iran, received his preliminary education at sphahan and his M.D. degree at Tehran Uni- ersity in 1962. He specializes in radiology.

Alan M. Muney, M.D., 19 Glen Abbey, St. ouis 63131, has become a member of St. Louis etropolitan Medical Society. Dr. Muney is a ative of New York, N. Y., received his prelimi- ary education at Brown University and his M.D. egree at Brown University in 1978. He special- zes in pediatrics.

Thomas A. Nicholas, M.D., Dept. of Family ractice, Little Blue and Lee's Summit, Kansas ity 64139, has become a member of Jackson ounty Medical Society. Dr. Nicholas is a native f Iowa City, Iowa, received his preliminary ducation at the University of Colorado and his .D. degree at the University of Colorado in 950. He specializes in family practice.

M. Ali Raffa, M.D., 6651 Chippewa, Suite 18, St. Louis 63109, has become a member of St. ouis Metropolitan Medical Society. Dr. Raffa is native of Libya, received his preliminary educa- on at Johannes Gutenberg University and his .D. degree at Johannes Gutenberg University 1970. He specializes in surgery.

Michael W. Raybould, M.D., Consortium for ealth Education, 2920 McGee, Kansas City 4108, Jackson County Medical Society. Dr. aybould is a native of Norfolk, Neb., received is preliminary education at Creighton Universi- and his M.D. degree at Creighton University 1980. He specializes in internal medicine.

Efraim L. Reyes, M.D., 1423 N. Jefferson, pringfield 65802, has become a member of reene County Medical Society. Dr. Reyes is a ative of the Philippines, received his prelimi- ary education at the University of the Philip- ines and his M.D. degree at the University of e Philippines in 1966. He specializes in ther- peutic radiology.

Lirio M. Reyes, M.D., 1331 Oak Run, Spring- eld 65804, has become a member of Greene ounty Medical Society. Dr. Reyes is a native of e Philippines, received her preliminary educa- on at the University of Santo Tomas and her .D. degree at the University of Santo Tomas in 966. She specializes in pediatrics.

Woo Hyuk Rhee, M.D., Nevada State School ospital, Nevada 64772, has become a member West Central Missouri County Medical Socie- . Dr. Rhee is a native of Korea, received his reliminary education at Catholic College and his

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M.D. degree at Catholic College in 1967. He specializes in general practice.

Dean D. Richards, III, M.D., 9150 E. 41st Terr., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Richards is a native of Lawrence, Kan., received his preliminary education at Baker University and his M.D. degree at the University of Kansas in 1976. He specializes in internal medicine.

Theodore W. Roberts, M.D., 400 W. Clay, Plattsburg 64477, has become a member of Clinton County Medical Society. Dr. Roberts is a native of Missouri, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1966. He specializes in general practice.

William K. Rosen, M.D., 725 N. 10th, Ozark 65721, has become a member of Greene County Medical Society. Dr. Rosen is a native of Big Spring, Tex., received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in family practice.

In Memoriam

Norman M. Hankin, M.D., 4233 Sulphur Ave., St. Louis 63109; graduate of the University of Wisconsin, 1943; member of St. Louis Metropolitan Medical Society; aged 63; died March 7, 1981.

Archie L. Walter, M.D., 1000 W. 7th, Sedalia 65301; graduate of Washington University, 1919; member of Pettis County Medical Society; aged 90; died March 14, 1981.

Hirendra Chakrobortty, M.D., 3654 S. Grand, St. Louis 63118; graduate of R. G. Kar Medical College, 1960; member of St. Louis Metropolitan Medical Society; aged 43; died March 17, 1981.

J. B. Grindon, M.D., 732 S. Hanley, Apt. 101, St. Louis 63105; graduate of St. Louis University, 1932; member of St. Louis Metropolitan Medical Society; aged 71; died April 15, 1981.

Marilyn M. Rymer, M.D., 2929 Baltimore
Suite 420, Kansas City 64108, has become a mem
ber of Jackson County Medical Society. Dr. Rym
er is a native of St. Louis, received her prelim
nary education at Northwestern University an
her M.D. degree at Washington University i
1970. She specializes in neurology.

Hillard L. Scott, M.D., 7520 Natural Bridg
Rd., Normandy 63121, has become a member
St. Louis Metropolitan Medical Society. D
Scott is a native of St. Louis, received his pre
liminary education at Lincoln University and h
M.D. degree at St. Louis University in 1977. H
specializes in family practice.

Charles W. Sisk, M.D., 411 Nichols Rd., Kan
sas City 64112, has become a member of Jackso
County Medical Society. Dr. Sisk is a native
Eldorado, Ill., received his preliminary educa
tion at the University of Illinois and his M.D
degree at the University of Illinois in 1960. H
specializes in rheumatology.

David L. Smith, M.D., 2920 McGee Traffic
way, Kansas City 64108, has become a member
Jackson County Medical Society. Dr. Smith is
native of Carrollton, received his prelimina
education at University of Missouri-Kansas Cit
and his M.D. degree at the University of Mi
souri-Kansas City in 1976. He specializes in inte
nal medicine.

Julia M. Stanley, M.D., 7780 W. Bruno, Ap
4, St. Louis 63117, has become a member of S
Louis Metropolitan Medical Society. Dr. Stanle
is a native of St. Louis, received her prelimina
education at Fontbonne College and Washingto
University and her M.D. degree at the Univers
ty of Missouri-Columbia in 1979. She specializ
in emergency medicine.

Mark T. Steele, M.D., Consortium for Healt
Education, 2920 McGee Trafficway, Kansas Cit
64108, has become a member of Jackson Count
Medical Society. Dr. Steele is a native of Corona
do, Calif., received his preliminary education
the University of Missouri-Kansas City and h
M.D. degree at the University of Missour
Kansas City in 1980. He specializes in intern
medicine.

James C. Strickland, M.D., 950 Francis Pl
St. Louis 63105, has become a member of S
Louis Metropolitan Medical Society. Dr. Stric
land is a native of Springfield, received his pr

iminary education at Drury College and his I.D. degree at St. Louis University in 1976. He pecializes in orthopedic surgery.

Stephen E. Vierling, M.D., 5660 Pernod, St. .ouis 63139, has become a member of St. Louis Ietropolitan Medical Society. Dr. Vierling is a ative of St. Louis, received his preliminary ducation at St. Louis University and his M.D. egree at St. Louis University in 1976. He spe- ializes in orthopedic surgery.

Stephen A. Wallace, M.D., Consortium for Iealth Education, 2920 McGee Trafficway, Kan- is City 64108, has become a member of Jackson ounty Medical Society. Dr. Wallace is a native f Horton, Kan., received his preliminary educa- on at the University of Missouri-Columbia and is M.D. degree at the University of Missouri- olumbia in 1980. He specializes in internal edicine.

Roy J. Williams, Jr., M.D., Dept. of Internal Iedicine, Barnes Hospital Plaza, St. Louis 3110, has become a member of St. Louis Metro- olitan Medical Society. Dr. Williams is a native St. Louis, received his preliminary education at Harvard University and his M.D. degree at Duke University in 1973. He specializes in internal medicine.

New Student Members

Washington University

James Randall Hansbrough
David R. Karp

St. Louis University

John Carlton Busch, Jr.
David L. Gerstner
Becky R. Shelton

University of Missouri-Columbia

Mercedes Amado
Aaron K. Calodnak
Jim DeLine
John Marcus Downs
Amy Teresa Freyer
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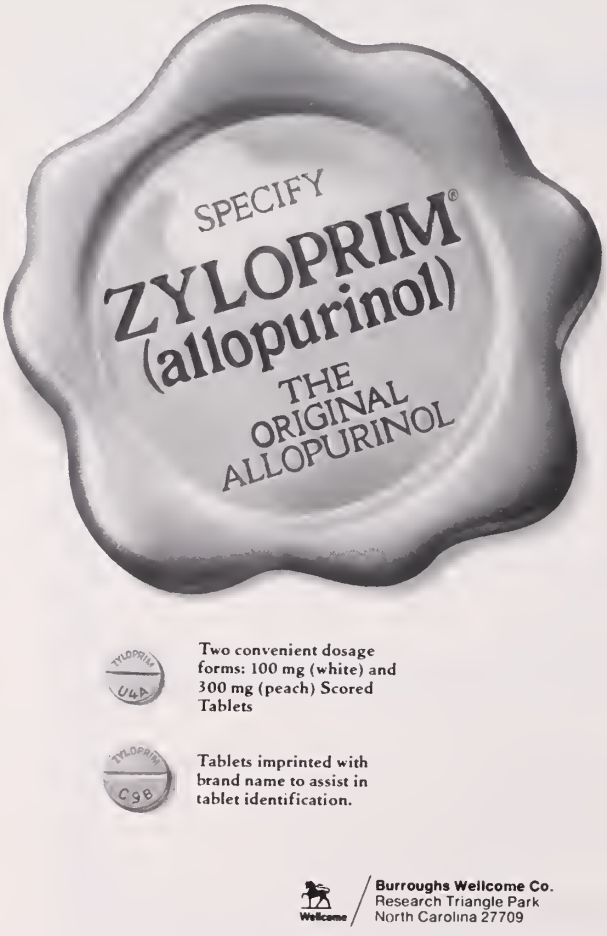

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Missouri State Medical Association held its 84th Annual Session at the Jefferson Hotel in St. Louis on April 28-30. The annual banquet in honor of past-presidents was held on Monday evening in the Gold Room. Dr. Morris Fishbein, Chicago, editor of *The Journal of the American Medical Association*, was the guest speaker. Dr. Cyrus E. Burford of St. Louis, president, was honored at a reception following the banquet.

The Nodaway-Atchison-Gentry-Worth County Medical Society held a dinner meeting at the Linville Hotel in Maryville on April 7. Dr. Samuel E. Simpson, president, presided. Dr. Hewitt Judd of Omaha presented an exceptionally fine lecture on "Recent Advances in Ophthalmology." He is Associate Professor of Ophthalmology at the University of Nebraska College of Medicine.

The Dunklin County Medical Society met on February 20 and elected the following officers: Dr. Homer Beall, Malden, president; Dr. Van H. Bond, Hornersville, vice-president; and Dr. Loys C. Wilson, Kennett, secretary-treasurer.

National Hospital Day will be celebrated on May 12.

TWENTY-FIVE YEARS AGO

Carl F. Vohs, M.D., president-elect of the Missouri State Medical Association, was reelected president of St. Louis Blue Shield at the annual meeting of the association on February 26. The organization now protects more than 418,000 members. R. O. Meuther, M.D., St. Louis, was elected first vice-president and Sen. John W. Noble, Kennett, was elected second vice-president. J. W. Thompson, M.D. of St. Louis was named secretary.

The Jewish Hospital of St. Louis held the Jack H. Tritt Memorial Lecture on March 29. It was presented by Leon Schiff, M.D., professor of clinical medicine at the University of Cincinnati School of Medicine.

After 30 years of service with the St. Louis Medical Society, Miss Aileen M. Patton retired on February 1. She served under 39 presidents of the association.

The St. Charles Community Council had as its speaker on February 16 Dr. Carl E. Rice of Hillsboro.

"Father Abraham," a symphonic suite composed by Vincent T. Williams, M.D. of Kansas City, was given its premiere performance by the Topeka Civic Orchestra in Topeka on January 25. Dr. Williams was a prominent surgeon in Kansas City and had been editor of *The Journal* for several years.

TEN YEARS AGO

Forty area physicians attended the March 3 meeting of the Buchanan County Medical Society at the Ramada Inn in St. Joseph. A social period and dinner preceded the meeting. Dr. Sharon E Waggoner presided. Dr. Joseph L. Fisher, president of the MSMA, introduced Dr. Paul Young and Dr. Luther Thomas, who is associated with the Medicare Division of Blue Cross.

The regular meeting of the Grand River Medical Society was held at the Strand Hotel in Chillicothe on March 11. Twenty-two members, wives and guests were present. It was moved that the Society go on record as opposing any use of state funds to subsidize any private medical school in Missouri.

Dr. Seymour Pollack, professor of psychiatry a the University of Southern California School o Medicine, was a guest lecturer at the St. Louis University School of Medicine on April 12-13. He was the main rebuttal witness for the prosecution in the trial of Sirhan Bishara Sirhan.

Missouri Medicine

Vol. 78, No. 6 (ISSN 0026-6620) June, 1981

University of Missouri-Columbia Health Sciences Center

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MSMA NEWS ROUND - UP

June, 1981

Foreign medical graduates receive mailing

Most foreign medical school graduates practicing in Missouri should have recently received a mailing regarding their medical degree from the State Board of Registration for the Healing Arts.

The State Board is acting in response to a recent ruling which ordered the Board not to license or relicense as MDs those physicians who do not hold a diploma from a medical school which reasonably translates as M.D. or Doctor of Medicine. Although the Board has appealed this decision, effective immediately, the Board will issue licenses to foreign medical graduates which bear the degree designation to which their diploma clearly states or which is reasonably translated.

In the recent mailing, the Board requires that foreign medical graduates must provide the Board with either a copy of their original medical diploma, an original, official translation if the diploma is not in English or a photocopy of the ECFMG certificate. The Board has stated that they will not issue a 1982 registration until this information has been supplied in full.

Fall tours offered to MSMA members

A 12 day luxury cruise through the western Mediterranean and an Italian Adventure are two fall tours being offered to Missouri State Medical Association members. The tours are being offered by INTRAV and feature non-regimented schedules.

The Mediterranean cruise, October 6-17, 1981, offers the opportunity to see such countries as Italy, France, Spain and Morocco. Among the highlights of the trip will be stops at the French Riviera, Casablanca, Barcelona and Gibraltar.

The 11 day Italian Adventure leaves Kansas City and St. Louis on September 18, 1981 and returns September 28. Tour members will spend three days each in the cities of Venice, Florence and Rome. Also, an optional side trip to Naples will be offered.

A comprehensive program of medical seminars will be conducted on each of the tours. If you would like additional information, please write to the Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65102.

Medical students receive Honors Graduate Award

The Missouri State Medical Association recently recognized the outstanding medical student at each of the four medical schools in Missouri. The Honors Graduate Award was presented to the graduating senior displaying outstanding achievement in the study of medicine.

The four recipients of the Award were presented with a cash prize and a certificate of achievement during their commencement exercises.

The Awards were presented to: Eva Frazer, University of Missouri-Kansas City; Jeffrey Leon Duncan-Myers, Washington University; Michael Geren Seneff, University of Missouri-Columbia; and Robert J. Backer, St. Louis University.

Membership Certificates available to MSMA members

The Missouri State Medical Association recently developed certificates of membership for MSMA members in good standing. The parchment certificates are suitable for framing and provide an excellent way to inform your patients of your membership in the Association.

If you would like to request a certificate, please contact the MSMA office, P.O. Box 1028, Jefferson City, Missouri 65102

CPI shows lower increase in physician care costs

The rate of increase in physician's fees during April was lower than the rate for all services and higher than the rate for all items in the Consumer Price Index. Charges for physician's services rose 0.7%, according to the federal Bureau of Labor Statistics, while the all-services component of the index went up 1.0% and the all items component rose 0.6%.

The medical care index as a whole increased 0.8% in April. The prescription drug component went up 1.2%, dental services rose 0.9% and hospital room charges increased at a rate of 0.9%.

The monthly percentage change in the physician's price index has decreased from 1.3% in February and 0.9% in March. From April 1980 to April 1981, the increase in physician's charges was 10.3%. During the same period all items rose 10% and all services 11.3%.

1981 MMPAC SUSTAINING MEMBERS

The MSMA members and Auxiliary members who have paid $100 to become Sustaining Members of the Missouri Medical Political Action Committee are listed below. As of June 1, 1981, 79 physicians and spouses have joined MMPAC.

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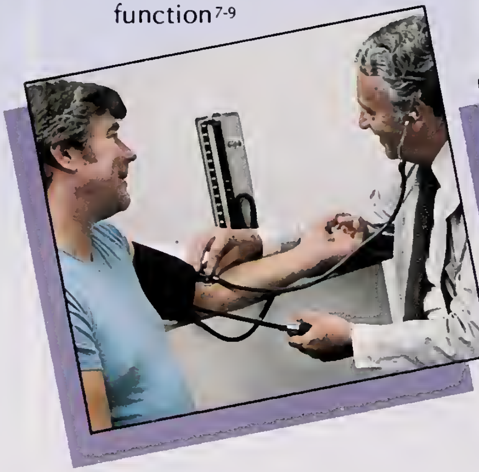

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References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245. 3. Pilewski RM, Scheib ET, Misage JR, et al: Technique of controlled drug assay in hypertension: V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 4. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone. *Clin Pharmacol Ther* 16:318-321, 1974. 5. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 6. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18:527-533, 1975. 7. Puschett JB: Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977. 8. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 9. Bennett WM, Porter GA: Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973. 10. *Drug Topics Red Book 1981*, and manufacturers' suggested prices.

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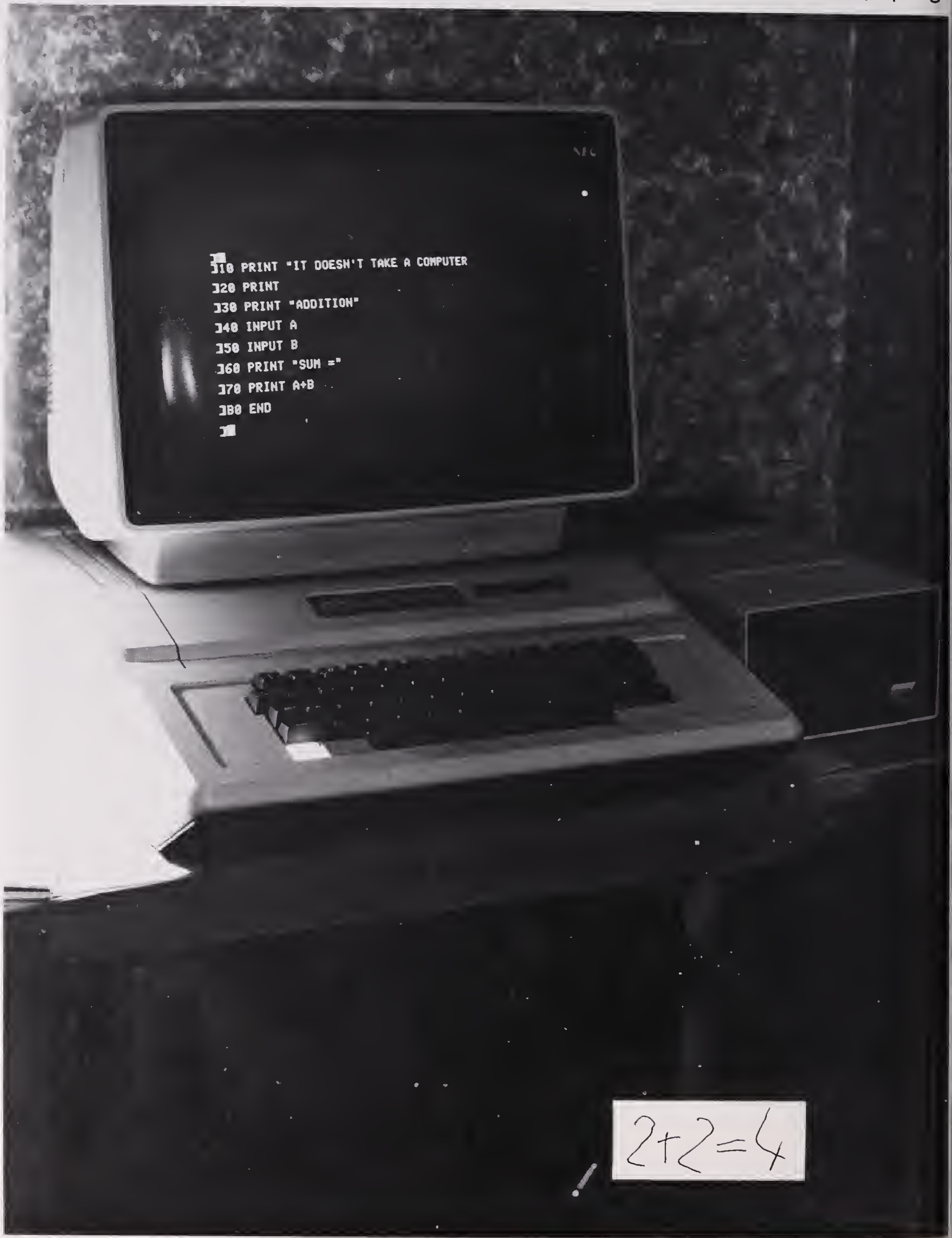
Photo-Comment by James W. Clawson, M.D., Springf



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Editor's Corner

Yes! 2 + 2 = 4 . . . No Matter How You Figure It!

I am, by no means, a believer in the effectiveness of the democratic process. I really believe the nonproductive will ultimately control the ballot box, as long as there is a ballot box. However, today, I am amused that the wide-eyed spenders who kept voting themselves into office, and who voted you and me into this economic mess, are as scared by their spectre as I am. In fact, in a television poll (5/8/81), I learned that those lads who dispended the dollar so freely for 50 years are now in favor of the recipients of public funds proving they deserve them, and maybe even working a little to get them.

That, alone, is an amazing concession. It shows that the United States Congress has finally caught up with ancient Greece, the Roman Empire and even begins to wonder if their architect, Roosevelt II, is their prophet, after all. (I might add that I am convinced that FDR will historically have a finger pointed at him as the single individual, nationally and internationally, who most contributed to the decline of the United States of America.) I really didn't think the United States Congress would ever concede such a point because I was not aware there was a good set of brains in the whole bunch.

I realize the above comments, which I hoped would be somewhat amusing, might be considered inflammatory in tender areas. If I lived in El Salvador, Argentina or Massachusetts, I would be shot tomorrow.

Nevertheless, there are one hundred cents in every dollar. If a country, year after year, spends one hundred and seventeen cents for every dollar received, someone must pick up a tab and you and I have been doing it for a long time. I don't believe that requires the intellect of a Rhodes scholar and, moreover, all the evils that money was to have dispelled are still with us, plus the federal bureaucracies necessary to dispense the funds. If that goes on long enough, that extra seventeen cents puts us where we are today, 1981, 1790, 510 or 340 B.C. Mercifully, someone is expected to arrive with a bandwagon and the sound of the calliope is supposed to drown out the identity of the riders.

With the already built-in expenditures, I frankly doubt the ability of any president to undo the damage. At least, I think this to be true within today's executive privilege. Given a white knight on a charger who could slay the dragons of wasteful bureaucracy in his path and simply wipe them out by fiat, it might be possible. Then we are perilously close to dictatorship, and that might very well be where this all will wind up when the shake-out comes.

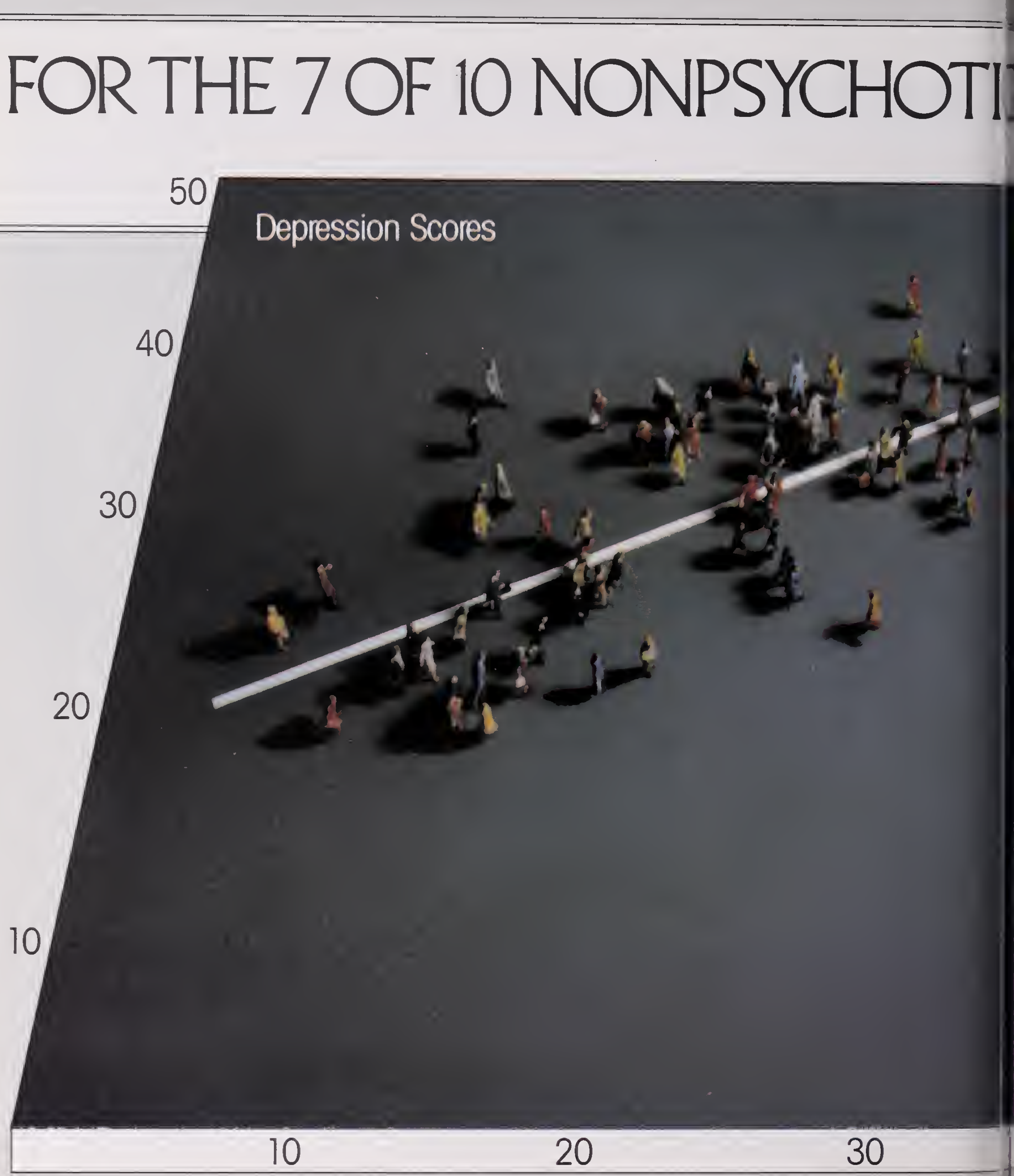
But this is a refreshing change, as long as it lasts. I don't think it will last long because every tightening, every restriction, every genuine economy will aggravate a few who voted one way in the last election and who will vote another way in the next. 1984, not 1980, will show the real and prevailing mood of our people, when combined with the recipients of public funds which has been built in for so long and which is now considered a right, not a privilege.

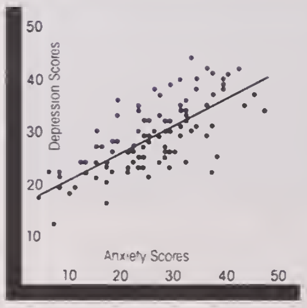
If you have much confidence in the ability of the man in the street to govern himself, you have more then I. Most people have always been suckers for the guy who will promise them more. Today is not different. Neither will be the result.

Wilfred E. Wooldridge

Wilfred E. Wooldridge, M.D.

FOR THE 7 OF 10 NONPSYCHOTI





Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3] Adapted from Clagham, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

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EPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: 1. Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

In moderate depression and anxiety

Limbitrol® CIV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises severe convulsions and deaths have occurred with concomitant use, then initiate cautiously gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g operating machinery, driving)

> ***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period Not recommended in children under 12

In the elderly and debilitated limit to smallest effective dosage to preclude ataxia oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs

Cardiovascular Hypotension, hypertension, tachycardia palpitations myocardial infarction, arrhythmias, heart block stroke

Psychiatric Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic Incoordination, ataxia numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic Skin rash, urticaria photosensitization edema of face and tongue, pruritus

Hematologic Bone marrow depression including agranulocytosis eosinophilia purpura, thrombocytopenia

Gastrointestinal Nausea, epigastric distress vomiting, anorexia, stomatitis peculiar taste, diarrhea black tongue

Endocrine Testicular swelling and gynecomastia in the male breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other Headache weight gain or loss, increased perspiration, urinary frequency mydriasis jaundice alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I.V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single *h s* dose may suffice for some patients Lower dosages are recommended for the elderly Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5 initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

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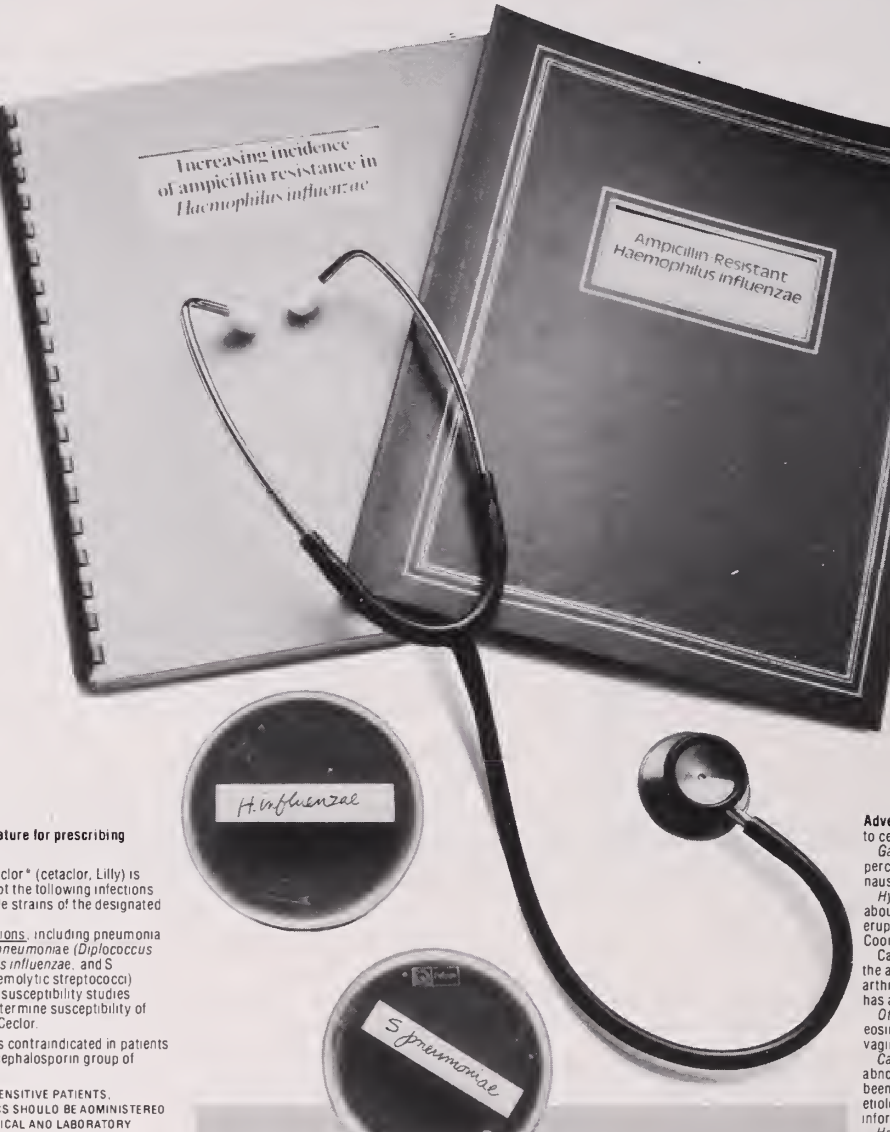
An added complication... in the treatment of bacterial bronchitis


Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and S *pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGDT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080A

---

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H. influenzae* [8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information.

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1 Antimicrob Agents Chemother , *8* 91, 1975
2 Antimicrob Agents Chemother , *11*, 470, 1977
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8 Principles and Practice of Infectious Diseases (edited by G L Mandell, R G Douglas, Jr , and J E Bennett), p. 487 New York. John Wiley & Sons, 197

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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Volume 78, Number 6 — June, 1981

Missouri Medicine

JOURNAL OF THE MISSOURI STATE MEDICAL ASSOCIATION

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UMC Four-Year Medical School Observes 25th Anniversary

by

CHARLES LOBECK, M.D., Dean
University of Missouri-Columbia
School of Medicine

HIS YEAR, we observe the 25th anniversary of the edical School's expansion to a four-year curricum and the concomitant opening of University ospital and Clinics.

A 25th birthday should be a time for youthful xuberance to look maturely at a productive fure.

Although our mission is clear and our resolve tense, we, and medical education in general, ce grave uncertainties. Federal and state finanial support for education is the crux of the probm.

Capitation funds for medical students, used by e School to maintain low tuition, are no longer ossible. Sources of student loans may disappear. any grants for primary physicians are also being liminated in the federal budget.

The immediate impact is uncertain. Many therwise qualified students may not be able to fford to come to our medical school despite our latively low tuition — which may have to be creased.

The long range effects could be felt particularly Missouri, which needs the physicians prouced by this medical school. Soon, the majority f the physicians in the state will be alumni of MC. We have an obligation to continue to meet e state's needs.

Despite our uncertain fiscal future, I am confient that we will successfully meet tomorrow's hallenges.

We are wrapping up a successful $2,025,000 fund raising campaign for a new Health Sciences Library. Hundreds of physicians, citizens, businesses and alumni contributed to the fund. I needn't recount the need for a new library facility for anyone who has graduated from this school within the last 25 years. The library is still the same space it was in 1956.

The University has made the new Health Sciences Library the number one priority for new construction funding from the Legislature. Raising $2 million from the private sector is impressive support for the $8.5 million project.

Last fall, we enrolled our 25th four-year class. Students came from all areas of the state — about half from metropolitan areas. The admissions committee reviewed 640 applicants.

This spring, the class of 1981 was graduated. Forty-eight will continue their residency training in the state and 34 of these are in one of the primary care specialties.

In the past 25 years, the medical school has graduated more than 2,100 physicians; about half are now practicing in the state. We are proud of that fact and are deeply aware of the incumbent responsibility.

This past fall, the Joint Commission on Accreditation of Medical Educators granted a seven-year accreditation to the School.

Several construction projects will start this summer and fall. A modular $1.1 million ophthalmology clinic will be built across the street from

(Continued on page 297)

Chest Case of the Month

JAMES D. MALTBY, M.D., GARY A. AGIA, D.O
and DANIEL J. HURST, M.D., *Columbi*

Symmetric Masses in an 83-Year-Old Man

Case Report

The patient, a spry 83-year-old white man, was admitted to the urology service for evaluation of recurrent urethral stricture. A routine admission chest x-ray revealed "mirror-image" mass lesions in both upper lobes (Fig. 1).

The patient was a retired electrician who had smoked two packs of cigarette a day for 25 years. During 1915-1929, he lived with a sister who was known to have pulmonary tuberculosis. The patient's intermediate strength purified protein derivative (PPD) skin test was positive, and he had never received any anti-tubercular chemotherapy.

He denied any respiratory symptoms. He estimated having lost 10 lb without a change in his appetite in the two months preceding admission. He was not taking any medications and denied any known history of allergy.

Results of a physical examination were normal.

The admission blood count showed the hemoglobin level to be 11.8 gm/dl; the hematocrit value, 33.7% with normal red cell indices; and the white blood cell count, 4,500 mm^3 with a differential count of 4% band forms, 58% neutrophils, 25% lymphocytes, 8% monocytes, 4% eosinophils and 1% basophil. A coagulation profile was normal and there was no occult blood in the stool.

All serum chemistries including an SMA 12/60, electrolytes and acid phosphatase were normal.

Serum protein immunoelectrophoresis showed a monoclonal peak in the beta-globulin region and a decrease in the gamma fraction. No M-band proteins were noted. A quantitative analysis demonstrated marked elevation of the beta-globulin fraction (2.0 gm%) with the individual immunoglobulin quantita tions as follows: IgG 438 mg/dl (900-1500 mg/dl), Ig 1784 mg/dl (80-200 mg/dl), IgM 22 mg/dl (100-15 mg/dl). Urine protein immunoelectrophoresis showe the presence of free lambda chains. There was n Bence Jones protein in the urine.

Posteroanterior (PA) and lateral views of the ches showed fairly symmetrical appearing mass densitie approximately 3 cm in diameter in the posterior seg ments of both upper lobes (Fig. 1). Review of old film five years ago showed bilateral apical pleural an parenchymal scarring with hilar retraction. However a PA film done one year prior to admission showed, i retrospect, minimal increased densities in the areas o both the present lesions (Fig. 2).

AP trispiral tomography of the lesion on the righ showed a solid lobulated lesion without calcification cavitation or air bronchograms (Fig. 3). Tomography o the lesion on the left showed a less sharply bordere lesion without lobulation containing an air broncho gram (Fig. 4). Both lesions showed the presence o linear densities extending out to the pleura ("pleura tail sign").

The transbronchial lung biopsy of the right uppe lobe was interpreted as poorly differentiate squamous cell carcinoma, while the transbronchia biopsy and a subsequent trans-thoracic needle biops of the left upper lobe mass lesion did not yield definitive diagnosis.

Surgical and pathologic findings are reviewed in the case report of simultaneously appearing mass lesions symmetrically located in the chest of an 83-year-old man.

Dr. Maltby is Associate Professor of Radiology, Dr. Hurst is Associate Professor of Medicine and Chief of Pulmonary Medicine and Dr. Agia is Senior Postdoctoral Fellow in Pulmonary Medicine at the University of Missouri-Columbia Health Sciences Center.

Surgical and Pathological Findings

A wedge resection of the left upper lobe was performed. Gross examination showed a 3.5 cm x 3.5 cm 2.5 cm yellow-to-tan consolidation within the lun parenchyma. Microscopically, there was an intens lymphocytic infiltrate surrounding the bronchi an invading the pulmonary vessels without causing fibrinoid necrosis. In many areas, normally maturing germinal centers were found to be ringed by nature lymphocytes and occasional plasma cells (Fig. 5). The diagnosis of pseudolymphoma was made, no therap was instituted and the patient was discharged.

Following an uneventful recovery and convalescence, the patient was readmitted five weeks later fo resection of the neoplasm in the right upper lobe. There were no obvious metatastic sites. At operation. the tumor was found to be invading the minor fissure

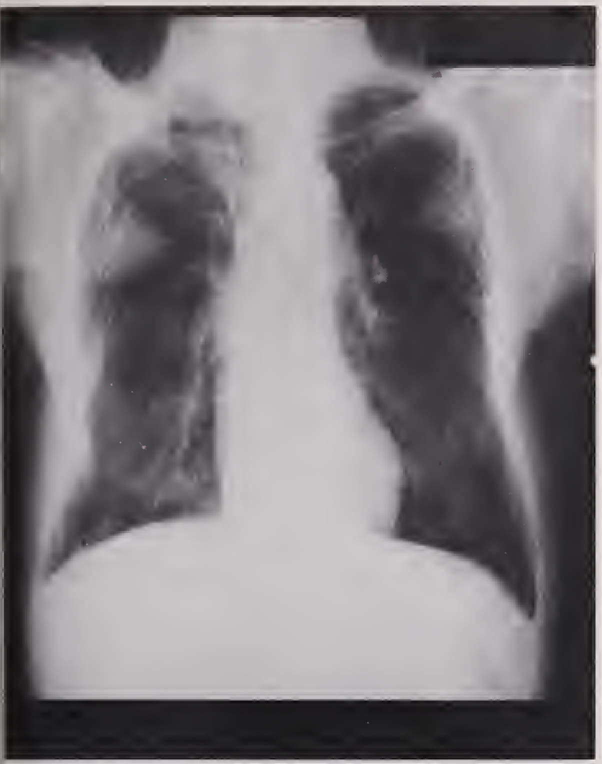

Fig. 1 PA chest on admission demonstrates bilateral pper lobe mass densities.

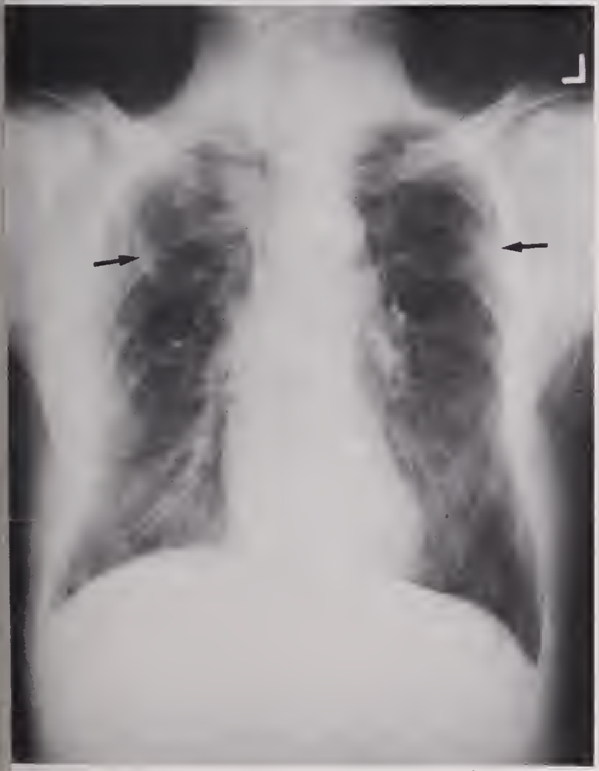

Fig. 2 PA chest one year earlier shows in retrospect rly evidence of both mass densities *(arrows)*. These were t present on a film four years earlier.

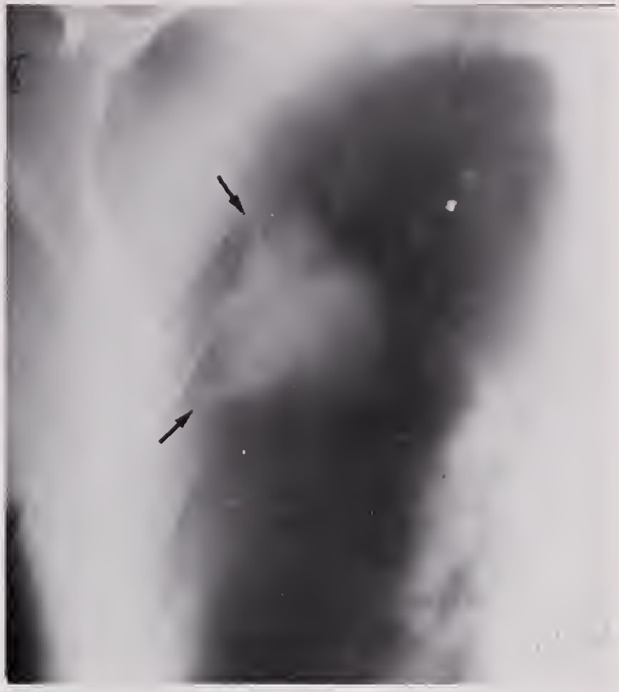

Fig. 3 AP tomogram of the right upper lobe mass shows a lobulated smoothly marginated mass. Note "pleural tail sign" *(arrows)*.

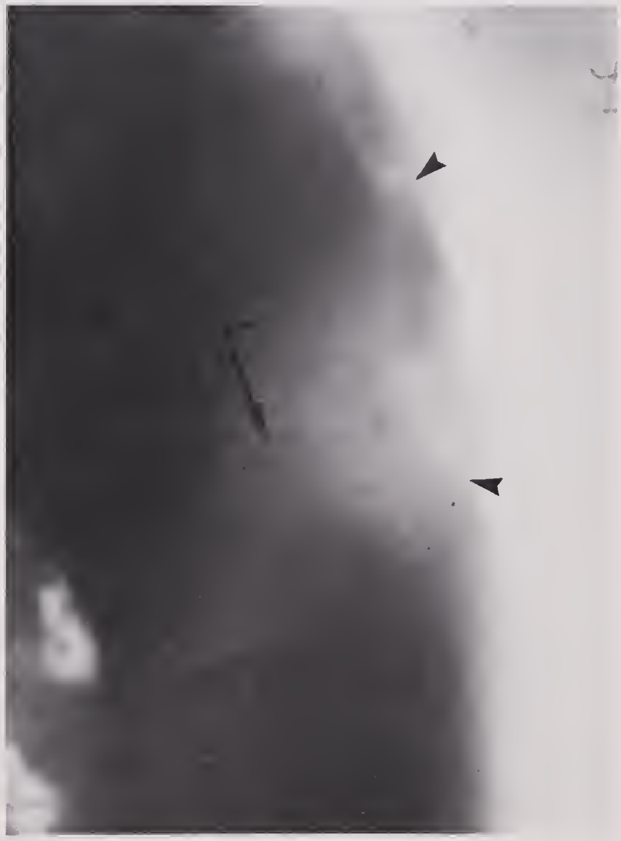

Fig. 4 AP tomographic view through the left upper lobe mass shows the presence of an air bronchogram within the lesion *(arrow)*. Note "pleural tail sign" *(arrowheads)*.

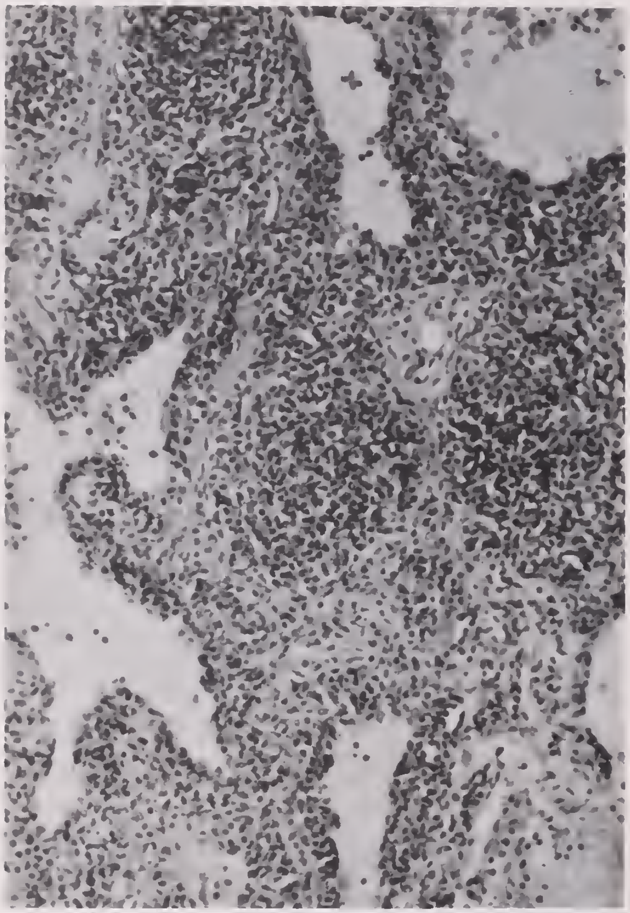

Fig. 5 Histology of the pulmonary pseudolymphoma shows a diffuse lymphocytic interstitial infiltrate that in several areas assumes the appearance of germinal centers. Interstitial fibrosis is also seen.

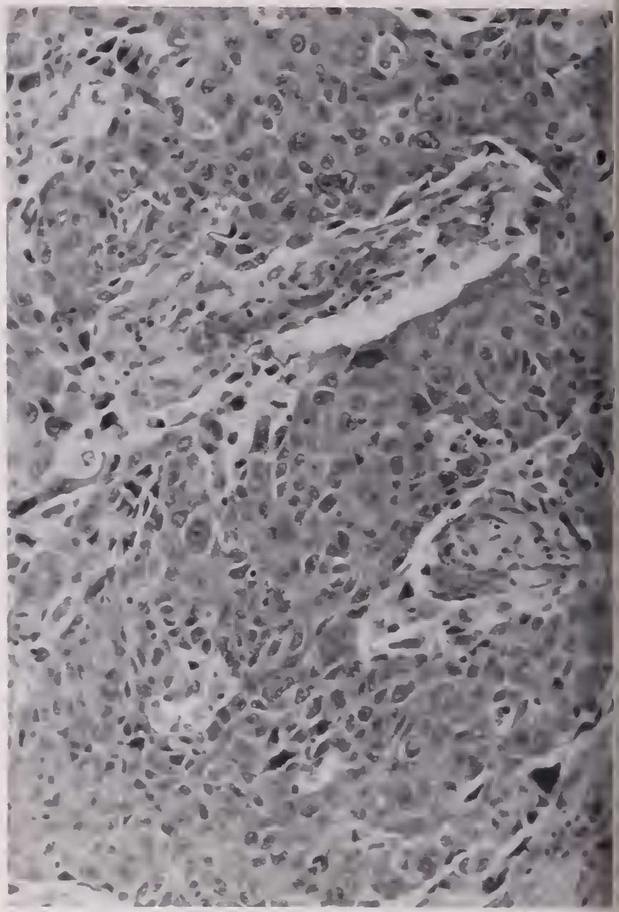

Fig. 6 Anaplastic adenocarcinoma of the lung is seen in the right upper lobe mass lesion.

and a right upper and middle lobectomy was performed. Gross examination showed a 5 cm x 4 cm x 3 cm tumor mass. There was not continuity of tumor mass to the pleural surface. Two lymph nodes were noted to be free of tumor cells.

A microscopic diagnosis of anaplastic adenocarcinoma was made. Indirect immunofluorescence of the anaplastic adenocarcinoma (Fig. 6) revealed the presence of an IgG immunoglobulin on the surface of plasma cells in the lesion. There was no IgA detected. Direct immunofluorescence for IgG and IgA was also done and found to be negative. It was concluded that the right upper lobe neoplasm was not responsible for the genesis of the IgA paraproteinemia.

During the immediate postoperative period following the second operation, staphylococcal septicemia, with the adult respiratory distress syndrome developed, and the patient succumbed to a myocardial infarction. An autopsy was performed, at which time several mediastinal and parabronchial lymph nodes were noted to be enlarged. Microscopically, these nodes were free of tumor but showed reactive plasmacytosis. No tumor was found elsewhere in the body.

DISCUSSION

Saltzstein reviewed 102 cases of primary lymphocytic tumors and classified the neoplasms as either benign or malignant. The primary lesions that appeared benign histologically and by clinical course he called "pseudolymphomas." Histological characteristics that support this diagnosis include a mixed mature lymphocytic infiltrate with true germinal centers with lymph nodes free of malignant lymphocytic cells.[1] A similar condition was described histologically later by Carrington and Liebow and termed "lymphocytic interstitial pneumonia," which has a different course and roentgenographic appearance.[2]

Jelsrud *et al* reviewed 27 cases of localized or diffuse infiltration of predominantly mature lymphocytes without evidence of disease outside of the thorax of which three were pseudolymphoma, 15 were well differentiated lymphocytic lymphoma and 13 were lymphocytic interstitial pneumonia.

The pseudolymphomas tended to be localized, peripheral mass densities that were often subpleural and usually with air bronchograms. They ended to be poorly marginated. The well-differentiated lymphocytic lymphomas were more like other neoplastic processes in the lung with sharp margins, more central in location, occasionally multiple and associated in some cases with pleural effusion. The lymphocytic interstial pneumonias were radiographically and clinically hat of a diffuse interstitial infiltrate.[3]

Monoclonal gammopathies are reported with ymphoreticular malignancies[4] whereas benign ymphoreticular disorders generally produce a polyclonal gammopathy.[5] However, IgM monoclonal gammopathy has been observed frequently with pseudolymphoma, and most authorities conider pseudolymphoma a pre-malignant lesion if a monoclonal gammopathy is identified with immunochemical staining.

This case presents two features that, to our nowledge, are unique in literature. Though pseudolymphomas have been associated with other disorders of autoimmunity such as Sjogren's yndrome,[6] systemic lupus erythematosis[7] and rheumatoid arthritis,[8] no cases have been reorted of the simultaneous development of a pulmonary malignancy and a pseudolymphoma. lso, an IgA monoclonal gammopathy seems to e a unique finding in pseudolymphoma.

The physicians were faced with a true diagnosc dilemma. Although in retrospect, certainly, ach of the lesions presented a classic radiologic picture of what they turned out to be, the inability to achieve a diagnosis of the lesion on the left by multiple attempted closed means made the choice of initial surgical approach difficult. Of interest radiographically was the presence of a "pleural tail" sign bilaterally. This case seems to emphasize Webb's findings[9] of an equal association of this sign with benign and malignant mass lesions. The radiographic differential diagnosis of the lesion on the left would have included bronchoalveolar carcinoma and malignant lymphoma. Surgical excision is the treatment of choice in pseudolymphoma in any event because of its uncertain status both histologically and immunologically.

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25th Anniversary

(Continued from page 293)

University Hospital's Outpatient Clinics Building. Ophthalmology Chairman Dr. Robert Burns as recently added three new staff physicians: Dr. homas Burton, specialist in retinal detachment; Dr. Henry Kell Yang, specialist in intraocular ens implants; and Dr. Joseph Giangiacomo, ediatric ophthalmologist.

The Cosmos International Foundation connues to raise money for a $640,000 million Cosmos International-UMC Diabetes Center that would be built adjacent to the Ophthalmology linic.

All of our departments face diminishing resources, but quality programming is still possible we marshal those available resources. Faculty and departmental chairmen have already shown heir interest and resolve in this area.

Dr. Gerald Brouder, interim dean of the School of Nursing, reports that the names of three candidates for the Nursing deanship will be submitted to Provost Ronald Bunn sometime this summer. It is anticipated that a new dean will be named by this fall.

University Hospital has made remarkable strides in recruiting nurses during the past year and now has more RNs and LPNs than ever before. Among their creative enticements are an internship program for recent nursing graduates, an on-campus child care center, a scholarship program and a personal scheduling plan which offers nurses premium pay for working weekends without benefits, or straight five-day weeks with benefits.

It's been an eventful year and we're looking forward to the next year and beyond.

ROBERT KASULKE, M.D., *Columbia*

Use of Ureteral Illumination for Accurate Identification of the Ureters During Surgery

The incidence of injury to the ureter(s) during operation varies from 0.5% to 2.5% for routine pelvic operations[1] to 30% for radical operations.[2] A thorough knowledge of the anatomy and the course of the ureters will help the surgeon avoid injury to these structures.

The identification of one or both of the ureters by either palpation or direct visualization is especially difficult in a patient who has had previous surgery or radiation involving the pelvis or in those cases in which these structures are encased by a pelvic tumor or a retroperitoneal mass. The surgeon may wish to have a "ureteral marker" in these difficult cases to accurately identify the ureters so that injury to these structures may be avoided. A safe method for identifying the ureters includes the insertion, into each ureter, of a catheter that can be illuminated by means of a fiberoptic light source.

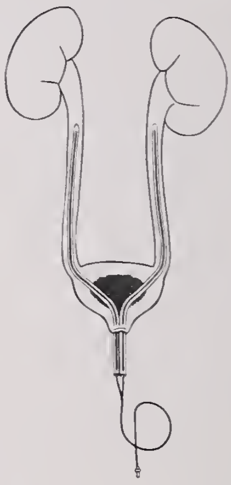

Fig. 1 Schematic diagram shows the position of the ureteral illuminator within the ureteral catheter. These catheters have been advanced to the level of the renal pelvis.

Technique

After the patient is anesthetized, a clear plastic ureteral catheter (5F or larger) is inserted into each ureter. Next, a ureteral illuminator (BUSH/ALC, American Latex Corporation, Sullivan, Indiana) is inserted into the lumen of each ureteral catheter and advanced to the level of the renal pelvis (Fig. 1). The operative field is then prepared and draped. These catheters may be inserted into the ureters under direct vision, through a cystotomy or ureterotomy. In some instances, this may be less cumbersome than the preoperative (or intraoperative) transurethal insertion of the ureteral catheters through the cystoscope.

The fiberoptic illuminator is connected to a cold light source. When the surgeon wishes to identify the ureter, the light source is turned on and the ureters are illuminated. Urine will flow freely around the illuminator when it is inserted into a ureteral catheter that is larger than 5F. When a 5F ureteral catheter is used, the illuminator may be easily removed and reinserted at intervals during the operation to allow for drainage of urine. The illuminators and ureteral catheters are removed at the end of the procedure.

The use of ureteral illumination to aid in the accurate identification has been successfully employed by the author in ten cases. This procedure is recommended for evaluation by others.

The author has successfully used ureteral illumination as an aid in accurate identification in ten cases. He recommends this procedure for evaluation by other surgeons.

Dr. Kasulke was a Fellow, Peripheral Vascular Surgery, Department of Surgery, University of Missouri Health Sciences Center at the time this paper was written. He is now Assistant Professor of Surgery, East Tennessee State University, Johnson City.

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P. C. ANDERSON, M.D., *Columbia*

Porphyria Cutanea Tarda in Missouri

ROM THE urine of a patient suffering from a evere cutaneous photosensitivity, Hans Fischer, n 1935, first isolated reddish, needle-like crysals. The crystals were uroporphyrin, and Fischer ad initiated the biochemical study of a group of uman diseases, later to be called the porphyrias. oday, although many omissions and deficiencies n our understanding remain, our concepts of the orphyrias represent a model of accurate and useul knowledge achieved through bioscience.

The most common photosensitive porphyria in issouri, as in the entire United States, is porhyria cutanea tarda (PCT). Because new and xcellent treatments are now well-established nd widely used, physicians may wish to review e diagnosis and care of PCT. They especially ay be concerned about the usual circumstances which the disease is most likely to be found in ur state.[1]

All of the porphyrias are errors in the synthesis f heme. This fascinating synthesis is one of the est elucidated of all major biochemical pathways humans. The synthesis of heme begins in the itrochondria with the combination of succinate d glycine to form aminolevulinic acid (ALA). ext is the transformation of ALA to porphobinogen, followed by the change to a uroporphynogen which requires two specific synthetases.

The human disease, PCT, is caused by a failure the next enzymatic step, a decarboxylation hich normally would form the harmless coprorphyrinogen. Instead, an enormous increase in ver uroporphyrins results from this failure to ecarboxylate rapidly, and this biochemical faile overloads the excretory pathway, causing the xic uroporphyrins to pass into the circulation d to accumulate in amounts 50 to 5,000 times ove normal in tissues throughout the body. The cumulation of uroporphyrin in the skin directly uses the photosensitivity. Damage to the skin sunlight is the principal sign of the disease, CT.[2]

PCT is a chronic disease of older adults and, in ost cases, these patients severely abuse the use alcohol. However, strict avoidance of alcohol ould not eliminate the disease because PCT also ay be caused by several other drugs or chemicals. Rarely, PCT may be due to tumors or other diseases of the liver or may arise without an apparent precipitating cause. The modern viewpoint is that the porphyrias almost always develop from a fundamental hereditary predisposition. Alcohol abuse appears to be the usual cause of PCT, but we recognize that alcoholic hepatitis actually is only the precipitating cause. Obviously, avoidance of any further alcohol abuse should be a part of any cure of PCT, but this complex improvement in human habits unfortunately is not achieved in most cases. The more seasoned clinicians will accommodate themselves to the possibility that many patients may have to be treated for porphyria while they continue to abuse alcohol.

Other illnesses besides alcoholism may complicate the management of PCT. Patients with chronic PCT are known to have an increased incidence of diabetes mellitus (30%-50%), tend to develop unusual tumors or other diseases of the liver, and may show some rare immunologic disorders. When the diagnosis of PCT is made, a thorough general examination of the patient is needed because full-blown PCT seldom evolves in healthy people.

Subclinical cases of PCT probably exist but are not well studied. The minimum diagnosis of PCT always requires demonstration of the biochemical error in heme synthesis, and treatment should not be sustained without an accurate biochemical diagnosis.

SIGNS AND SYMPTOMS

The first clinical signs of PCT are a general malaise or unusual easy fatigue. Patients notice episodes of dark urine which they may describe to their doctor as “bloody urine.” Backache, vague muscle pains and irritated red eyes are frequent early complaints. These symptoms might well be dismissed by the physician as due to some combination of exertion, aging, mental stress, recent infections or alcohol abuse. Urinalysis easily disproves the suggestion of hematuria. Soon after developing the initial symptoms, or at least by the next summer, the patient will display the more diagnostic cutaneous findings. These are poor

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The author reviews the diagnosis and treatment of porphyria cutanea tarda. His message calls attention to the need for early diagnosis of this not-so-rare disease in Missouri, an agricultural state, and the special importance of remembering the earlier symptoms when considering the diagnosis of porphyria cutanea tarda in Negro patients.

This paper was originally presented as a Medical Grand Rounds in the Fall of 1980.

Dr. Anderson is from the Department of Dermatology, University of Missouri Health Sciences Center.

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healing of the skin over knuckles with easy denudation at sites of trauma and the beginnings of photosensitivity on the face and hands. Photosensitivity is shown by red plaques, sometimes with blisters, in areas of skin exposed to sunlight.

The earlier symptoms are important to remember when considering the diagnosis of PCT in Negro patients. Because the skin is well protected by melanin, Negroes may develop photosensitivity reactions only very late in the disease and long after the onset of the severe general illness of PCT. Negro patients may report to the physician about the extraordinary blackening of the skin in the sun, which is far beyond his prior experience with tanning in the summer. The family members may be the first to become alarmed about the patient's changing color. PCT is one of several causes of a rapid increase in melaninization of the skin.

In order for the physician to diagnose PCT in the darker Negro patients, a thorough understanding of the noncutaneous signs and biochemistry of the disease is required. Patients who are almost black in the color of their skin may never develop the cutaneous bulla associated with active PCT during the summer. Such black patients, even without photosensitivity, will have liver ailments, dark urine, malaise, muscle pain and some fragility of skin caused by PCT. Negroes of light skin color will reliably show photosensitization.

White patients with PCT, especially those with pink skin and red hair, will show all types of severe skin injury when exposed to ordinary sunlight. Skin injury can also occur indoors when these patients are exposed to intense fluorescent lighting. The offending wavelengths of light are around 400 nm or at the short-wave length limit of our vision. However, the total dose (watts/cm^{-2}) must be adequate to cause the disease. In the winter, the intensity of very long-wave ultraviolet light is reduced below the dose that will cause the photosensitivity. PCT is obviously seasonal in almost all patients.

After years of sun exposure, the older patient with PCT has a permanent disfigurement. Blotchy hyperpigmentation of the face is a common initial change in PCT. It is followed later by atrophy, scarring, sclerosis, follicular keratosis and, most impressively, hirsuitism. The eventual result is a face that appears to have been severely burned in a fire and later grew tufts of hair. The erroneous diagnoses of severe acne, systemic scleroderma, localized morphea, lupus erythematosus or cutaneous tuberculosis have been made. In women, the appearance of coarse black hair in the damaged areas of the face may suggest some syndrome of masculinization. On the scalp, scarring alopecia develops later in the disease, and the loss usually is permanent. This alopecia may be misdiagnosed as fungous or bacterial infection. In summary, the result of neglected PCT may be permanent, severe facial disfigurement as well as a prolonged systemic illness, all of which can be prevented by early diagnosis and modern therapy.

Diagnosis in the Office

If the patient is symptomatic with PCT when in your office, as most PCT afflicted people will be during summertime, then the biochemical anomaly by which the disease can be diagnosed will be demonstrable in urine immediately and easily in your office. At the same time, if the screening test shows excessive uroporphyrin, arrange to send a clean 24-hour accumulation of urine to a capable laboratory for a determination of total uroporphyrins. A telephone call to the laboratory may be appropriate because misunderstandings concerning porphyrin biochemistry are common. Many laboratories will determine only the porphobilinogen in porphyric urine unless they are instructed most carefully. Porphobilinogen is absent in PCT and, of course, the Watson-Schwartz test is not pertinent to the diagnosis of PCT. In PCT, uroporphyrins in urine are usually 2,000 to 7,000 µgm/24 hours, in our experience, but may be greater than 50,000 µgm/24 hours. Normal persons have about 50 to 80 µgm of uroporphyrins in one day's urine, as determined by most laboratories.

In the office, the physician may use a simple and immediate test, looking for the reddish-orange fluorescent secondary light emitted by the uroporphyrins in the urine when extracted in alcohol and stimulated by intense ultraviolet light at about 400 nm wavelength (Fig. 1). Some practitioners do not have an ultraviolet light with sufficient intensity or one that is properly filtered with which to do the test. Most dermatologists do have such a lamp and can be called upon to assist. The masking of the red-orange tint by other fluorescent substances in the urine may be confusing. A proper ultraviolet lamp, a totally dark room and ome experience with the test is needed. The urine can be examined directly, but the more ensitive, more reliable test depends on the exraction of uroporphyrin from acidified urine with amyl alcohol. This extraction test is the best procedure used routinely for the diagnosis of PCT, but later, because a standard extraction technique mproves comparability of samples, the method an be used to monitor the effectiveness of therpy during monthly outpatient visits. Serum tests or uroporphyrin are technically possible and may be evaluated accurately by experienced technicians. In ordinary office practice today, the urinalysis is far superior and much less expensive han other methods.

Treatment of PCT

Two main types of treatment for PCT have been shown to induce remissions reliably in most patients; these are phlebotomy and the use of chloroquin. All treatment is monitored by demonstrating that urinary uroporphyrin levels deline gradually to near normal and noting that the patient's photosensitivity disappears quickly. ppen, in 1900, discussed the therapeutic worth of removing about a half liter of whole blood from he patient each week until the content of hemoglobin reached about 11 gm/100 cc of blood.[3] However, we have found that phlebotomy must be aggressive enough to cause a borderline anemia in order to keep tissue uroporphyrins near normal.

For elderly persons with some diseases of the heart or kidneys or for persons with some blood disorder, this aggressive treatment might be unsuitable. We know that repeated venesection or ny other type of sustained anemia will reduce markedly the circulating uroporphyrins, but we re ignorant of the exact mechanism by which this nemia causes improvement in PCT. The effect seems to be more complicated than merely a reduction in bodily iron-stores. In fact, iron-stores in the liver may not be reduced during remissions. Because, over the course of the entire illness, phlebotomy requires a large number of visits and additional costs as well as entailing personal distress and anemia, I prefer the other important method of treatment. The familiar antimalarial drugs, chloroquin or hydroxychloroquin, taken in low dose once a week at home[4-6] are effective for most cases of PCT.

OFFICE TEST FOR UROPORPHYRINS IN URINE

1) Acidify urine with 1 cc (15 gtts) concentrated acetic acid in about 5 cc urine.
2) To 6 cc acidified urine, add 2 cc amyl alcohol.
3) Warm and shake thoroughly: alcohol is upper layer.
4) Using UVA lamp; clearly see fluorescent orangish-red alcohol layer if uroporphyrins are present in excess (use control).

Fig. 1

Dosage and correlation of dose to the stage of illness is important. When the patient is most ill with PCT, a large single dose, such as 250-1,000 mg of chloroquin might cause an injurious reaction, i.e., the patient might develop fever, confusion, malaise, muscle and joint pain, pain on urination, tenderness over the bladder or kidneys, abdominal distress, vomiting or possibly other signs of injury to the central nervous system. Combined with other illnesses, or with alcohol debilitation, such aggressive treatment with large doses of chloroquin could be dangerous. Under special conditions and with excellent supervision, such large doses of chloroquin given in a short course have been used successfully to induce long remissions of PCT despite some adverse effects.

We suggest a different method. Our interest has been to devise the *lowest* effective dose of chloroquin given over a period of many months of treatment. This can eliminate all notable adverse effects and will induce long stable remissions. This optimal dose, we suggest, ranges from 50 to 250 mg of chloroquin/week depending on the stage of the disease. Tentatively, we suggest this optimal initial dose is only about 50 mg of chloroquin or hydroxychloroquin weekly to be given early in the course of severe symptomatic PCT while the patient still feels ill. Without new symptoms or any apparent stress to the liver, the drug causes the uroporphyrins to be depleted rapidly and photosensitivityis eliminated. Part of the success of this therapy may be due to the fact that the uroporphyrins form a chemical complex with the chloroquin acquiring a much improved solubility in water, which allows a more rapid elimination of uroporphyrins in urine.[6]

The first stage of treatment at the lowest dose requires about four weeks. Then, patients may take 100 mg chloroquin weekly and finally take the regular tablet of chloroquin, 250 mg weekly or twice weekly, until the uroporphyrin is about 100-200 μgm/24 hour urine. Depending on the general health of the patient and improved protection of the liver, remissions may be prolonged for many years.

If PCT can be corrected by using a sustained treatment with chloroquin in a very small dose, we then have a vast reassurance as to safety of the treatment from our long experience with malaria prophylaxis in people with various illnesses of the liver. Assurance of safety is one of the intentions we had in choosing this therapy. Combinations of treatment may be possible, for example, using low-dose chloroquin with gradual removal of one or two liters of blood to manage special cases.

In addition to safety, simplicity and low cost, another principal benefit of chloroquin therapy is that remissions are prolonged and stable enough to tolerate some alcohol abuse or to allow necessary hormonal therapy. In a few persons, if chloroquin is used in full doses and over many months, various problems may arise, and in some persons, injury to the retina may result. Continued use of chloroquin presumes expert supervision.

Prognosis of PCT

A complete, long-term followup is needed for patients with porphyria who seem to be maintained in stable remissions to determine all the benefits of this therapy. A medium-range study of blood, retina, liver and porphyrins shows good results. We expect the benefits of treatment would be greater than just the obvious resolution of symptoms. For example, well-treated patients enjoy reduced long-term disability and mortality rates generally, and they would be expected to escape important dysfunctions of the liver. For some patients, the resolution of PCT is a turning point in their decision to seek a healthier life-style generally and, particularly, to improve their own responsibilities for avoiding alcohol abuse. Once the patient is asymptomatic, followup care may be offered at three- to six-month intervals, with one of the visits in mid-summer, to assess the photosensitivity. This assessment should include a urine test for uroporphyrins and sugar in addition to a usual physical examination. More complete studies may be required at much longer intervals or for special reasons.

PCT in Missouri

Natural hormones may induce PCT.[7] Before the introduction of oral contraceptive medications, PCT was seldom diagnosed in women. As a large proportion of the female population takes oral contraceptives, even well into middle age, the incidence of PCT in women has increased and may be expected to increase further. Hormonal therapy for several diseases as part of cancer chemotherapy, for instance, should induce PCT in more older persons as well. Chronic or recurrent hepatitis, particularly due to drug abuse, increases steadily, especially in the unemployed population in the large cities. Any chronic injury to liver predisposes to PCT.[8] Photosensitivity arising in any patient known to have dysfunction of liver, must be considered to have PCT until the tests are done.

Agriculture is a major industry in Missouri, and agriculture involves the use of various chlorinated phenolic chemicals, many of which are used as fungicides and herbicides. Chlorinated phenolics are known to induce PCT in almost all persons receiving a large enough dose.[9, 10] Despite good intentions, accidents and oversights in the use of these dangerous chemicals do occur. The agricultural workers of the state must be considered to be at a greater risk of developing PCT than most others, even including workers in the chemical industry. Negro patients with PCT, who may not show the photosensitivity components of the disease until the metabolic aspects are severe, are easily overlooked by the physician. Such patients require special consideration in regard to the early diagnosis.

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n Approach to Patients With the ecent Onset of Arthritis

Part I

LARGE PROPORTION of patients seen by the eneralist have musculoskeletal symptoms as heir primary complaint. This is not surprising hen one considers that the majority of people ventually develop degenerative joint disease DJD) by the eighth decade, up to 4% of the opulation have rheumatoid arthritis (RA)[1] and p to 80% of people have low back pain at some me in their life.

The patient who has the recent onset of arthri-s manifested as joint pain and perhaps swelling nd stiffness may, at first glance, appear to have nclassifiable disease. However, with careful uestioning about pertinent details in the history f the onset of the problem and the character of e musculoskeletal and related symptoms fol-wed by a complete physical examination, in-luding careful inspection of all of the joints, the eneralist should be able to make a tentative di-gnosis in most cases. Once this is accomplished, lanning an appropriate evaluation to confirm the iagnosis and a program for management easily llows.

Of course, many rheumatologic diseases begin sidiously and evolve slowly, making early di-gnosis difficult. Patients with such a disease urse who are not extremely ill can be observed refully through the evolution of their disease ithout subsequent harm. If the physician is tentive to the development of new symptoms d signs, they may ultimately reveal the specific agnosis.

Laboratory studies may be useful in supporting suspected diagnosis, but they are rarely capable establishing a diagnosis in the absence of in-rmation obtained by questioning and examining patient.

ONARTICULAR RHEUMATISM

Because patients without actual arthritis may calize their symptoms to joints or periarticular eas, it is important to include multiple causes of narticular rheumatism in the differential di-nosis of early arthritis. A list of such diagnoses formulated by the American Rheumatism Association[2] is found in Table 1.

Primary fibrositis, an especially common cause of musculoskeletal complaints, is diagnosed in more than 25% of new patients in private rheumatology practice. This disorder is characterized by generalized stiffness and painful trigger areas[3] and does not progress to cause joint deformity. Frequently, patients with fibrositis have a characteristic psychological make-up and disturbances of sleep. Symptoms are exacerbated by cold exposure and exertion.

Intervertebral disc and low back syndromes are common problems. The latter is frequently related to occupational activities. The source of pain may be due to bony or soft tissue abnormalities combined with the additional stresses of abnormal posture or stressful physical activity.

The myositis and myalgia group includes polymyalgia rheumatica which occurs generally in patients over 50 years of age. Patients usually complain of painful stiffness in the pelvic and/or pectoral girdles without weakness other than guarding from pain. Usually, the sedimentation rate is markedly elevated and this condition is sometimes associated with temporal arteritis which may lead to transient visual loss and tenderness over the temporal arteries.

Tendinitis and bursitis are also very frequent sources of periarticular pain which may be acute or chronic and severe. The shoulder is most commonly affected, especially in middle-aged men. Tenosynovitis may occur alone as well as in asso-

TABLE 1
NONARTICULAR RHEUMATISM

Fibrositis
Intervertebral disc and low back syndromes
Myositis and myalgia
Tendinitis and peritendinitis (bursitis)
Tenosynovitis
Fasciitis
Carpal tunnel syndrome
Others (Shoulder hand syndrome)

In the case of many patients with the recent onset of arthritis, a diagnosis can be made with a thorough history and physical examination, including careful attention to the musculoskeletal system. The use of a simple classification of joint involvement may aid in planning further diagnostic and therapeutic approaches. Certain types of arthritis require aggressive evaluation and treatment in order to prevent permanent joint damage or harm to the health of the patient. Many other types of arthritis may be monitored carefully for progression of symptoms and signs and treated with a basic program even when the definitive diagnosis is not immediately apparent.

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ciation with numerous types of inflammatory arthritis. It is usually a sequela of repetitive stressful movement of a particular tendon, such as in Achilles tendinitis from jogging or DeQuervain's stenosing tenosynovitis of the abductor pollicis longus and extensor pollicis brevis in factory workers. Fasciitis commonly causes pain localized to the bottom of the foot, especially the heel.

Carpal tunnel syndrome is due to compression of the median nerve by the flexor retinaculum at the wrist. It may appear suddenly after heavy activity requiring gripping, such as in shoveling snow, or insidiously without obvious cause. Patients are frequently awakened from sleep with pain and paresthesias of the involved hand. Symptoms also may occur when the hands are elevated to drive an automobile or read the newspaper. A variety of conditions such as diabetes mellitus, acromegaly, pregnancy, hypothyroidism, amyloidosis and any type of arthritis which involves the wrist may be associated with carpel tunnel syndrome. In some instances, no associated condition is found.

Glossary of Abbreviations

DJD — Degenerative joint disease
MCTD — Mix connective tissue disease
RA — Rheumatoid arthritis
SLE — Systemic lupus erythematosus

THE HISTORY

It is possible to begin to categorize the type of arthritis in a patient by obtaining a detailed history of the present illness and of the patient's general medical status.

The Present Illness

Initially, it is important to determine which joints or periarticular areas are involved. Patients should be specifically questioned about every joint since most patients are not aware of joints such as the temporomandibular, sternoclavicular or sacroiliac joints and tend to generalize joint involvement as occurring in the hands and feet rather than to specify localized joints. It is also important to ask where the pain is felt since pain in one joint may be referred to another joint area as, for example, hip pain to the knee. Obtaining a description of specific movements which exacerbate the pain also helps to localize an involved joint.

Determining the presence of signs of inflammation such as swelling, warmth and erythema, detecting loss of function and ascertaining the degree of these abnormalities are valuable in the assessment of arthritis. Although observation of these findings by the physician is essential for definitive diagnosis, the description by the patient may provide clues. For example, acute gout, septic arthritis, pseudogout[4] and acute rheumatic fever may cause more severe pain, redness and greater loss of function in a joint than many other types of arthritis. On the other hand, rheumatoid arthritis does not usually cause joint erythema.

There is a characteristic pattern of joint involvement in many forms of arthritis with respect to the number and types of joints which are involved simultaneously and the time sequence of appearance and disappearance of symptoms. Whether there is involvement in the upper versus the lower extremities may aid in differentiating some types of arthritis; for example, Reiter's syndrome and acute sarcoid arthritis usually involve the lower extremities. Symmetrical versus asymmetrical involvement may help to differentiate rheumatoid from psoriatic arthritis. Septic arthritis occurs most frequently in large joints in the lower extremities rather than in small joints in the upper extremities. Ankylosing spondylitis most commonly involves large proximal joints such as the hip and shoulder when it affects joints other than the spine rather than small peripheral joints.

The change in the pattern of joint involvement ith time is also significant. For example, acute out is usually rapid in onset and transient. Acute heumatic fever and early disseminated gonococal infection have a migratory pattern with one or ore involved joints regressing as new joints beome involved. RA is frequently additive with ew joint involvement imposed on previous onarticular or polyarticular arthritis. DJD is lowly progressive in one or more joints.

Certain events related in time to the onset of rthritis may have contributed directly or inirectly to exacerbations of joint involvement. hus, trauma is a common event preceding arcular and periarticular complaints which are tually due to acute gout or septic arthritis. urgery frequently precipitates attacks of acute out and acute pseudogout. There are numerous edical and surgical conditions which can preipitate an attack of the shoulder-hand syndrome hich is characterized by shoulder pain and welling of the ipsilateral hand. These include yocardial infarction, stroke or brain surgery. RA nd systemic lupus erythematosus (SLE) are ften preceded or exacerbated by emotional ress. During pregnancy, RA may be ameliorated and may be followed by postpartum excerbation while SLE may be improved or excerbated during pregnancy and frequently flares fter delivery.

Although variations may occur, the course of isease activity over a period of time is frequently ery typical for specific types of arthritis and thus ay provide a clue to the diagnosis when the isease has been present for awhile. Therefore, nowledge of the typical courses which different rms of arthritis may take aids in making a dignosis, choosing appropriate therapy and guidg the follow-up in order to attempt to prevent e development of severe joint destruction and eformity.

Useful characteristics for monitoring include e degree of disease activity, the duration of isease flares, whether the disease is sustained or as symptom-free periods and the effect of treatent. For example (Fig. 1), hepatitis B arthritis sually lasts approximately six weeks and does not cur.[5] Attacks of palindromic rheumatism occur regularly with symptom-free periods and without residual joint damage.[6] Gout is also characterd by severe acute attacks at variable intervals itially. If the disease is untreated, however, tacks begin to occur more frequently (still with mptom-free intercritical periods) and, finally, ter 12 years of untreated disease, chronic sympms may develop between even more frequent exacerbations.[7]

Since space limitations preclude publication of *An Approach to Patients With the Recent Onset of Arthritis*, this article will appear in two parts. Part II will be published in a subsequent issue.

The References also have been divided, but reference numbers will be continuous from installment to installment.

DJD is slowly progressive and 50% of patients with pseudogout have slowly progressive activity resembling degenerative joint disease but with superimposed acute exacerbations.[4] Reiter's syndrome is characterized by exacerbations which usually last approximately two months and may or may not be followed by chronic disease activity.[8]

RA may take several different courses. Ten percent of patients have acute onsets with progressive, severe disease. Forty-five percent of patients have a moderately progressive course with sustained activity. Twenty-five percent have a slow onset, a period of moderately active disease and then sustained mild-to-moderate disease activity. Up to 20% have an intermittent course with symptom-free periods while 5% to 10% remit permanently after one or two episodes.[9]

Whether or not the patient has been evaluated previously by a physician for arthritic complaints, it is frequent for some form of treatment to have been employed. It is important to document exactly what type of medication or other therapies have been used, how long they have been used and what response has occurred. For example, a previous injection of adrenocorticotropin or corti-

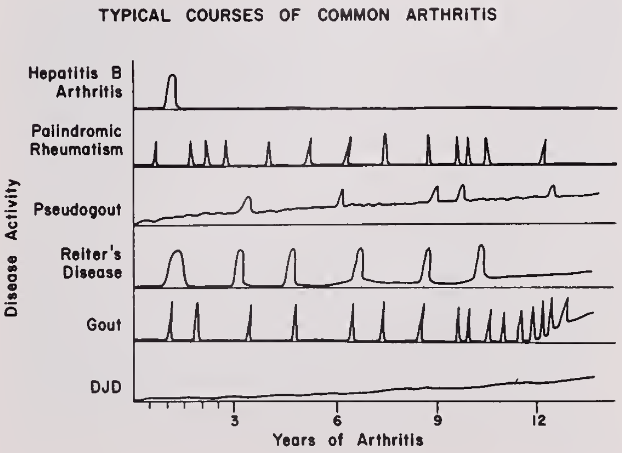

Fig. 1

costeroid administration by local, oral or parenteral routes may ameliorate inflamed joints to the degree that they no longer appear involved with arthritis. However, frequent injections of joints with corticosteroids may actually hasten destruction of cartilage,[10] so it might be unwise to consider continuation of this form of therapy.

On the other hand, if chronic corticosteroid therapy has been prescribed inappropriately, abrupt discontinuation may precipitate an acute flare of any type of inflammatory arthritis. A previous beneficial response to colchicine may appear to favor the diagnosis of gout, but this fact alone is not adequate for a diagnosis. Acute sarcoid arthritis,[11] pseudogout[4] and psoriatic arthritis also may be treated successfully with colchicine.

Aspirin is commonly self-prescribed for any arthritic symptom, but most patients do not consider it a drug and fail to mention it. Therefore, one must question the patient specifically about the dosage and duration of aspirin use and its effect. Numerous over-the-counter drugs contain aspirin and should also be considered. The effect of aspirin on serum uric acid levels should also be remembered when considering a diagnosis of gout. Doses of aspirin of less than 2 gm per day may cause an elevation of serum uric acid whereas doses of more than 3 gm per day may increase the excretion of urate and thereby lower the serum uric acid.[12]

The presence of local versus systemic and inflammatory versus noninflammatory disease may be determined from the history of the illness. An important indicator of systemic inflammation is generalized morning stiffness, and the duration of stiffness correlates well with the degree of inflammation. This symptom is not specific for inflammatory arthritis, however, and may occur in the presence of systemic infection or other inflammatory conditions. Inadequately treated RA or other inflammatory arthritides such as Reiter's syndrome, ankylosing spondylitis or chronic tophaceous gout may cause prolonged morning stiffness for up to four or more hours. In contrast, when localized or noninflammatory joint diseases such as DJD, chronic pseudogout or tendinitis have associated morning stiffness, it is usually less than 30 minutes in duration, is confined to the involved joints and is easily relieved by heat and movement of the joint.

The gel phenomenon refers to localized stiffness which occurs after periods of immobility and subsides with activity of the joint. This symptom is not specific for inflammation and may occur in many types of inflammatory and noninflammatory arthritides.

Systemic fatigue is another nonspecific indicator of systemic inflammation. The time of onset during the day may correlate well with the degree of inflammation present. Frequently, a patient with RA or SLE will feel rested upon arising in the morning. Depending on the amount of exertion attempted, however, he or she will become so fatigued by mid-day that a nap is required before resuming the day's work. Weakness may be generalized in the presence of systemic inflammation. It is necessary to distinguish generalized weakness from localized weakness that may also be caused by or secondary to an inflammatory condition such as polymyositis (associated with proximal muscle weakness), atrophy of muscles surrounding inflamed joints or vasculitic neuropathy.

Localized noninflammatory causes of weakness in the rheumatic disease patient include entrapment neuropathies such as the carpal tunnel syndrome or nerve root impingement in cervical spondylosis or discogenic disease of the lumbar spine. Questioning the patient about the performance of routine activities of daily living, such as reaching for objects on a high shelf or combing one's hair, rising from a chair, or performing fine movements with the hands, may aid in localizing symptoms of weakness.

The history of the present illness from a patient with recent onset of arthritis is not complete without further attention to nonarticular symptoms which may be associated with a rheumatic disease. Skin rashes may appear in a variety of forms such as the erythematous malar rash of SLE, the urticarial rash of hepatitis B arthritis or serum sickness or palpable purpura in many forms of vasculitis including SLE. Skin tightening of the hands, forearms or perioral area may be noted in early scleroderma. Photosensitive rashes or exaggerated sunburn may be present in up to 40% of patients with SLE[13] and mixed connective tissue disease (MCTD).[14]

Subcutaneous nodules may be noted by the patient with RA, SLE or gout. In gout, the nodules may be found on extensor surfaces or pressure points similar to rheumatoid arthritis, surrounding joints or on the helix of the ear and are actually uric acid-containing tophi (Fig. 2). Mucocutaneous ulcers with or without pain may be due to SLE, MCTD, Reiter's syndrome or Behçet's syndrome. Raynaud's phenomenon is

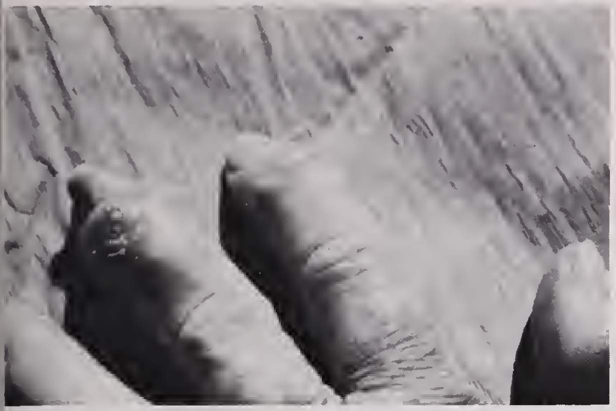

Fig. 2 Periarticular subcutaneous nodules are gouty tophi containing sodium urate crystals.

experienced by up to 80% of MCTD patients,[14] by more than 90% of scleroderma patients and much less frequently by patients with RA and polymyositis.

The Physical Examination

The physical examination must be complete since any system other than the musculoskeletal system may be directly or indirectly involved.

When the joint examination is performed, all joints should be palpated and the presence of signs of inflammation, including tenderness to palpation, warmth, swelling, erythema and pain on motion, should be noted. Signs of structural abnormalities such as crepitus due to roughening of the cartilage, a click due to a torn meniscus or bony deformity as from an old fracture or previous arthritis should be recorded, also. The most important aspect of the joint examination is the functional status which is assessed by range of motion measurements of all joints, tests for stability of the oints and measurement of chest expansion since the latter may be decreased in patients with ankylosing spondylitis.

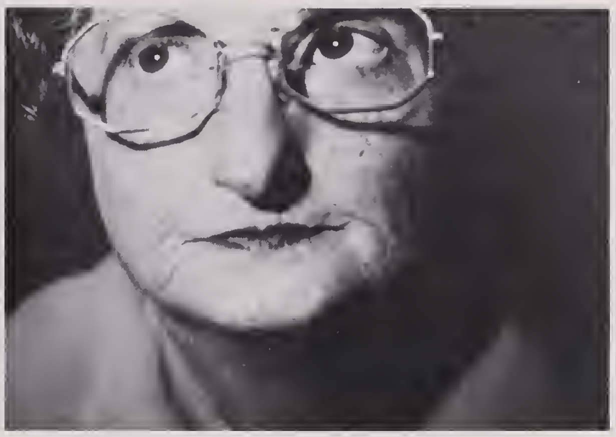

Fig. 3 Scleroderma patient has multiple square-shaped telangiectasias covering her face. Note the pursed lips due to perioral skin tightening.

The approach to the muscle examination includes the same categories as the joint examination. The presence of inflammation may be indicated by tenderness and swelling. Structural abnormalities may include tender, indurated areas of spasm, atrophy or a large bulge resulting from a ruptured tendon. The functional assessment is done with tests for strength and endurance which can be tested by any of a number of methods. In patients in whom proximal muscle weakness is suspected, the length of time the head and legs (one at a time) can be held at 45 degrees from a supine position can be measured normal: males >57 sec, females >32 sec)[17] or the patient can be asked to rise from a sitting position without the use of hands as many times as possible in one minute. Patients with severe proximal weakness can barely do this once or not at all.

A special search should be made for physical findings which may be overlooked or not recognized as significant. Examples are skin abnormalities such as square-shaped telangiectasias of the hands or face (MCTD, scleroderma) (Fig. 3), psoriasis in hidden areas such as the scalp or buttocks, periungual erythema (connective tissue diseases), pustules with or without necrotic target centers (disseminated gonorrhea) (Fig. 4) or vesicles followed by scaly lesions of keratodermia blennorrhagica on the soles of the feet (Reiter's syndrome) (Fig. 5). Circinate balanitis, a scaly lesion of the glans penis in Reiter's syndrome, should also be sought. Subcutaneous nodules may be present in RA or in gout when they are tophi filled with uric acid crystals. Alopecia may be patchy, diffuse or appear as broken hairs at the

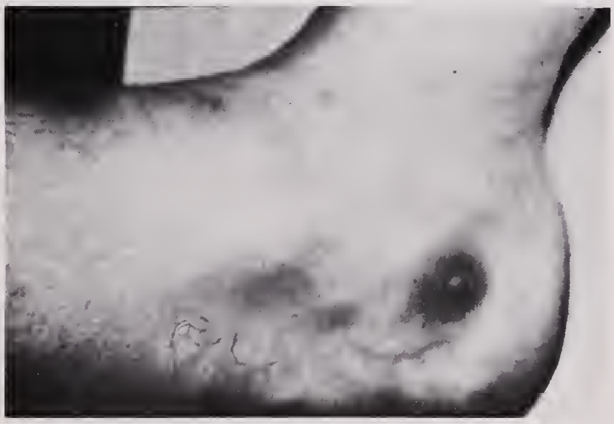

Fig. 4 Typical pustule with necrotic center found in disseminated gonococcal disease.

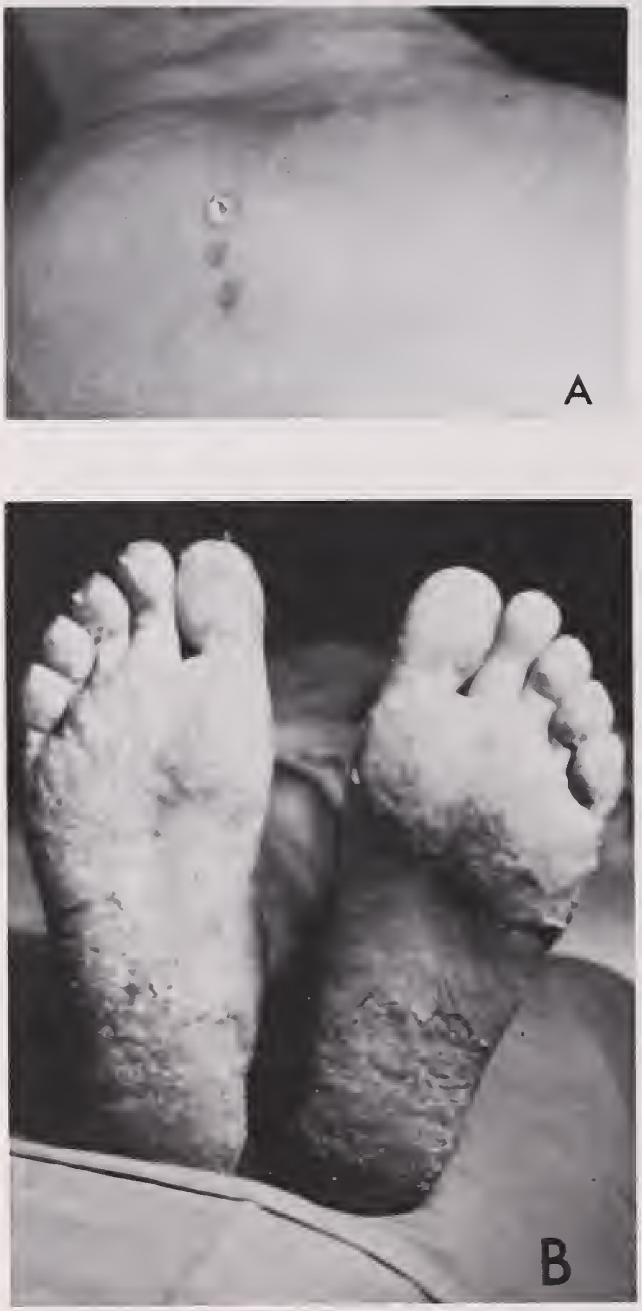

Fig. 5 *(A)* Vesicular lesions on the heel were present early in the course of Reiter's syndrome. *(B)* Subsequently, soles of both feet were nearly covered with the scaly lesions of keratodermia blenorrhagica.

hairline (SLE and MCTD). Nail pitting is almost always seen in psoriatic arthritis when there is distal joint involvement.[18]

Oral ulcers should be sought on the soft palate (Reiter's syndrome, connective tissue diseases) and under the tongue (Behçet's syndrome). Nasal and ear cartilage may be tender and inflamed in relapsing polychrondritis or have a blue gray discoloration in ochronosis. Nasal septal perforation may occur in the connective tissue diseases or vasculitis due to any cause. Examination of the eyes may reveal conjunctivitis or iritis (Reiter's syndrome), episcleritis (vasculitis complicating RA) or cytoid bodies in the fundus that appear as cotton wool spots and are due to infarctions of the retinal layer due to vasculitis (SLE, MCTD). If Raynaud's phenomenon is suspected, an attempt should be made to induce the color changes from white to blue to red. Immersing the hands in cold water may not be adequate and complete chilling by exposure in a cold room situation may be necessary if possible.

Central and peripheral nervous system symptoms may be found in many rheumatic diseases. Mononeuritis multiplex, an asymmetrical sensory-motor peripheral neuropathy or sensory peripheral neuropathy are more commonly seen in RA vasculitis, polyarteritis nodosa or other forms of vasculitis. Central nervous system symptoms are often experienced early in the course of SLE and may include seizures of any type, pseudotumor cerebri and organic mental syndromes. Headaches may also be present with or without scotomata similar to migraine.[13]

Gastrointestinal symptoms may precede, occur simultaneously with or follow the arthritis of inflammatory bowel disease, and Reiter's syndrome may be preceded by dysentery. Scleroderma and MCTD patients frequently develop marked esophageal reflux due to decreased peristalsis of the distal esophagus.

The cardiopulmonary system can be involved in many connective tissue diseases, including SLE, MCTD and scleroderma, with symptoms ranging from those of pericarditis and pleuritis to congestive heart failure due to cardiomyopathy. A large percentage of RA patients have asymptomatic pericardial effusions. Pleurisy may occur in RA, SLE or MCTD.

Symptoms of hematologic system abnormalities may vary from fatigue due to the anemia of chronic disease that frequently occurs in any inflammatory illness to petechiae caused by autoimmune thrombocytopenia in SLE.

A history of urethritis, conjunctivitis and iritis should always be sought in male patients suspected of having Reiter's syndrome. Ankylosing spondylitis may be accompanied by decreased visual acuity due to posterior uveitis. While iritis and posterior uveitis are usually symptomatic, frequently the conjunctivitis may only be recognized by mild conjunctival injection without other symptoms. The iridocyclitis of juvenile rheumatoid arthritis may also be asymptomatic early in its course, but it may progress to blindness. This is found most frequently in young girls with the pauciarticular (one to four involved joints) form of juvenile RA.[15]

A complete review of symptoms may reveal further medical problems that are known to be associated with various types of arthritis, such as hypertension (gout), hypothyroidism (pseudogout), hyperparathyroidism (pseudogout), diabetes mellitus (Charcot joints), hemophilia (hemarthroses) or psoriasis (psoriatic arthritis).

Past Medical History

A history of remote, recent or chronic infections may be pertinent to the diagnosis of several types of arthritis. Reiter's syndrome may be preceded by gonorrhea or bacillary dysentery; rheumatic fever typically follows beta-hemolytic streptococcal pharyngitis; and mild arthritis of the hands, wrists and knees may occur in women with or following Rubella infection.[16] Chronic suppurative lung infections are a frequent cause of hypertrophic pulmonary osteoarthropathy. The genitourinary symptoms of gonorrhea, if present, may precede gonococcal arthritis by months. It is also necessary to question the patient about exposure to all of the aforementioned infections since symptoms may not occur. Previous exposure to hepatitis B may also be pertinent. Immunizations for Rubella or influenza may cause arthritic symptoms.

The medication history may also provide clues for the etiology of rheumatic complaints. For example, oral penicillin and sulfonamides may cause serum sickness. Use of diuretics may result in sufficient elevation of the serum uric acid to precipitate an attack of gout. Corticosteroids or cytotoxic agents are immunosuppressive and predispose to infections, including septic arthritis. Corticosteroids may also induce aseptic necrosis of bone. Many drugs have been incriminated in the etiology of drug-induced lupus, the most common of which are procainamide, hydralazine and diphenylhydantoin.[1] Sulfonamides and birth control pills may induce flares of SLE and MCTD. Birth controll pills may also cause erythema nodosum with ankle and knee arthritis similar to acute sarcoidosis.

Even habits such as the use of tobacco, alcohol and drugs may be relevant to the diagnosis of arthritis. Lung neoplasms are often accompanied by hypertrophic pulmonary osteoarthropathy, gout attacks may be precipitated by alcohol ingestion and drug abusers are at risk for hepatitis B and joint infections.

Family History

The hereditary tendency for numerous arthritides and arthritis-associated diseases such as DJD, gout, ochronosis, pseudogout, hemachromatosis and Wilson's disease have been recognized for some time. More recently, many rheumatic diseases have been noted to occur in patients who possess certain cell-surface antigens which are the products of specific genes present in the histocompatibility locus of chromosome 6. The best correlation between gene product and disease is that of the HLA B-27 antigen and ankylosing spondylitis where the antigen is detected in at least 90% of patients.[1] The B-27 antigen also is associated with Reiter's syndrome and the spondylitis of both inflammatory bowel disease and psoriatic arthritis. It appears that RA, SLE and MCTD may also have hereditary influences.

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President's Message

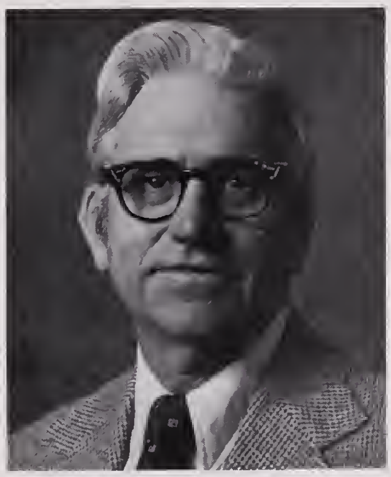
It appears that the time is approaching when there will be more health care professions in America than needed. What happens when the supply exceeds the demand? Some groups survive and some do not.

With these thoughts in mind, have you considered how you will continue to operate your office at the present rate and stay busy? First and foremost in importance will be the care and consideration you give to your patients.

I feel very strongly that our patients want and need to know that their physicians are interested in them and available to them whatever the time or circumstances. Actually, I suspect that some patients often test their physicians by calling in the middle of the night to see if they can depend upon them in time of need. This probably would not happen if they were more confident.

Please be certain that you give your patients the best care at all times and that your office staff members always conduct themselves in a friendly, professional manner and in the interest of the patients when they greet them and make appointments or collections.

I offer this primarily as a reminder that the result will be appreciation on the part of your patients . . . and appreciation breeds loyalty for today and the future.



Eugene T. Hansbrough, M.D.

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MSMA Auxiliary

Is the Auxiliary Alive and Well in Missouri?

After I have had this opportunity to tell you of the many activities of our MSMA Auxiliary members in this state this past year, you will wonder why they had time to be home at all. Some people seem to think that auxiliary members just get together for lunch and social exchanges. Let me set the record straight. Our Auxiliary members across Missouri are as effective and the equal of any in the country.

Mrs. Jerry Meyer
President

I would like to tell you about some of the ideas that have been used by our members during the past year. The Boone County Auxiliary gives each newcomer to the community a gift package that includes 90 items and is delivered with a fresh loaf of bread. Buchanan County Auxiliary has devised a scrapbook with a page for each member. She may list her interests, picture and family information. This gives each member a better opportunity to know all the members of a large auxiliary.

CPR was again a major health project with Cape Girardeau County Auxiliary training high school students and physicians' employees and teaching seven classes in eight months. Some county auxiliaries like Cole undertook this project for the first time and reported that 14 members took advantage of the class.

Projects around the state are as diversified as the members' imagination. Clay County Auxiliary sent a newsletter to each member with directions for the next meeting, pictures from the previous meeting, recipes, craft ideas and general auxiliary information. In Greene County a contest was held in the junior high and high school home economics classes to find the "Best Nutritious Snack." Jackson County Auxiliary printed a "Rx for Punches and Munches" recipe book. Jasper County Auxiliary held its first Health Fair. Four hundred third graders had the opportunity to learn about nutrition, hygiene, anatomy, physical fitness, self image, smoking and first aid. This project was well received by the community, students, parents and school administrators. As you can see, our members have been very busy and in many different ways.

Some especially interesting programs are the Pettis County child restrains in automobiles; Butler-Ripley-Wayne-Carter Counties' "Women and Smoking"; and Buchanan County's "Cutting Calories But Not Flavor." Other county auxiliaries presented speakers on the hospice organization.

Legislative Day in Jefferson City was a special success because so many members from the different areas of the state participated. County auxiliaries sending members were Boone, Buchanan, Clay, Cole, Grand River, Jackson, Jasper, Lafayette-Ray, Miller, Morgan, Moniteau, Pettis, St. Louis Metropolitan, and others with whom I did not get to visit personally.

Our projects would not be possible if it were not for fund-raising to some extent. St. Louis Metropolitan Auxiliary had a "Florence Cooks Italian" day with a $400 profit. Grand River Auxiliary hosted its food auction for AMA-ERF/MSMF and netted $747.50. Cape Girardeau County held a "Tasting Buffet and Promise Tree Auction and raised $1,700.

Each county auxiliary remembers its physicians on Doctor's Day. Saline County plants a new tree at Fitzgibbon Hospital each year. Lafayette-Ray members held a contributive dinner. Buchanan County purchased first aid supplies for the Senior Citizens Center. Cape Girardeau members are planning a buffet dinner with family members of the doctors at the Central High School and will give a donation to the music department. The Jasper County hospitals have made it possible for doctors to obtain a free chest x-ray and blood tests.

I'm sure you'll agree that our members are truly alive and well!

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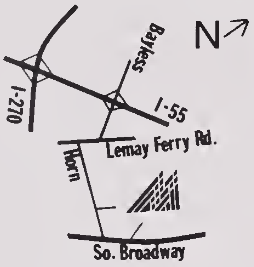

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Notes of interest from Here . . . . and There

Approximately 700 people attended a reception honoring **Dr. Claude W. Cooper** of Thayer on "Dr. Cooper Appreciation Day" on May 26. Among the guests was Representative Travis Morrison who presented a copy of a resolution passed by the Missouri House of Representatives commending Dr. Cooper for his years of dedicated service to the community. Dr. Cooper has served as Councilor for the MSMA Ninth District.

Dr. John C. Listerman, Springfield, received the 1981 Truman Foundation Veterans Medal at a luncheon attended by 300 people at the Raddison Muehlebach Hotel in Kansas City in May. Dr. Listerman, a graduate of the University of Missouri School of Medicine, lost a leg in Vietnam and was honored for heroism.

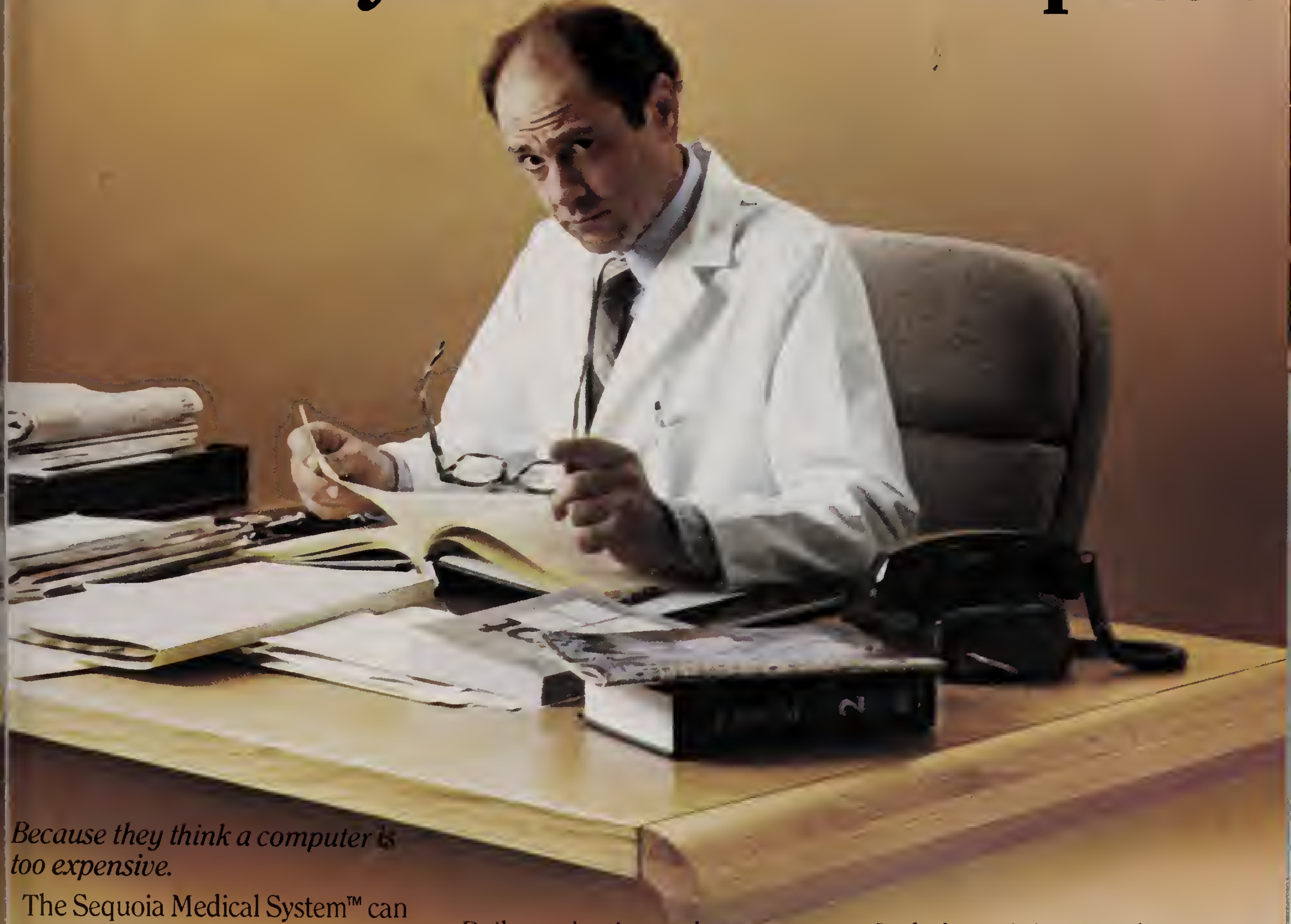
Dr. Kenneth Glover, Mt. Vernon, retired on May 14 after 43 years of practice in Mt. Vernon. During his years practicing medicine, he delivered nearly 2,000 babies and was listed in *Ripley's Believe It or Not* for his obstetric work. In recent years, he has devoted his time to general practice only. Dr. Glover served nine years on the Mt. Vernon Board of Education, 15 years on the Board of Trustees for Southwest Baptist College and is a past president of the Mt. Vernon Rotary Club. He is a charter Fellow and life member of the American Academy of Family Physicians, was the first treasurer of the Missouri chapter and served as its president.

Dr. Thomas Fleming, Moberly, and **Dr. Wallace Stacey,** Independence, have been cited by the University of Missouri-Columbia Alumni Association for contributions to medicine and the University. Dr. Thomas was recognized for his loyalty to medicine, to fellow man and to the University. Dr. Stacy was cited for his service to the University as a member of the Board of Curators, of which he was president in 1979.

Dr. Thomas B. Ferguson, St. Louis, was elected president-elect of the American Board of Medical Specialties at its annual meeting in March. He also was the guest faculty member for the Postgraduate Course in Thoracic Surgery, Harvard Medical School at the Massachusetts General Hospital in Boston. In addition, Dr. Ferguson was a speaker at the National Board of Medical Examiners Invitational Conference in Philadelphia and presented the Adrian Ehler Lecture as visiting professor at Albany Medical College in Albany, N.Y.

Dr. James R. Green, Kennett, has been appointed to a statewide advisory board of the Missouri High-Risk Pregnancy Program by Gov. Christopher S. Bond. Dr. Green, who serves as president of the Dunklin County Medical Society and secretary for the medical staff at Dunklin County Memorial Hospital, is a specialist in obstetrics and gynecology.

We're looking for doctors who think they don't need a computer.



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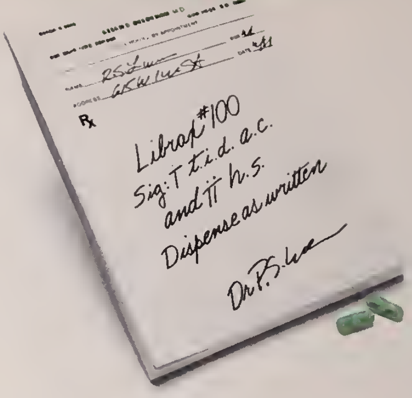

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective. as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e g , operating machinery, driving) Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function Paradoxical reactions reported in psychiatric patients Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges Syncope reported in a few instances Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholinergic agents, *i e* , dryness of mouth, blurring of vision, urinary hesitancy, constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

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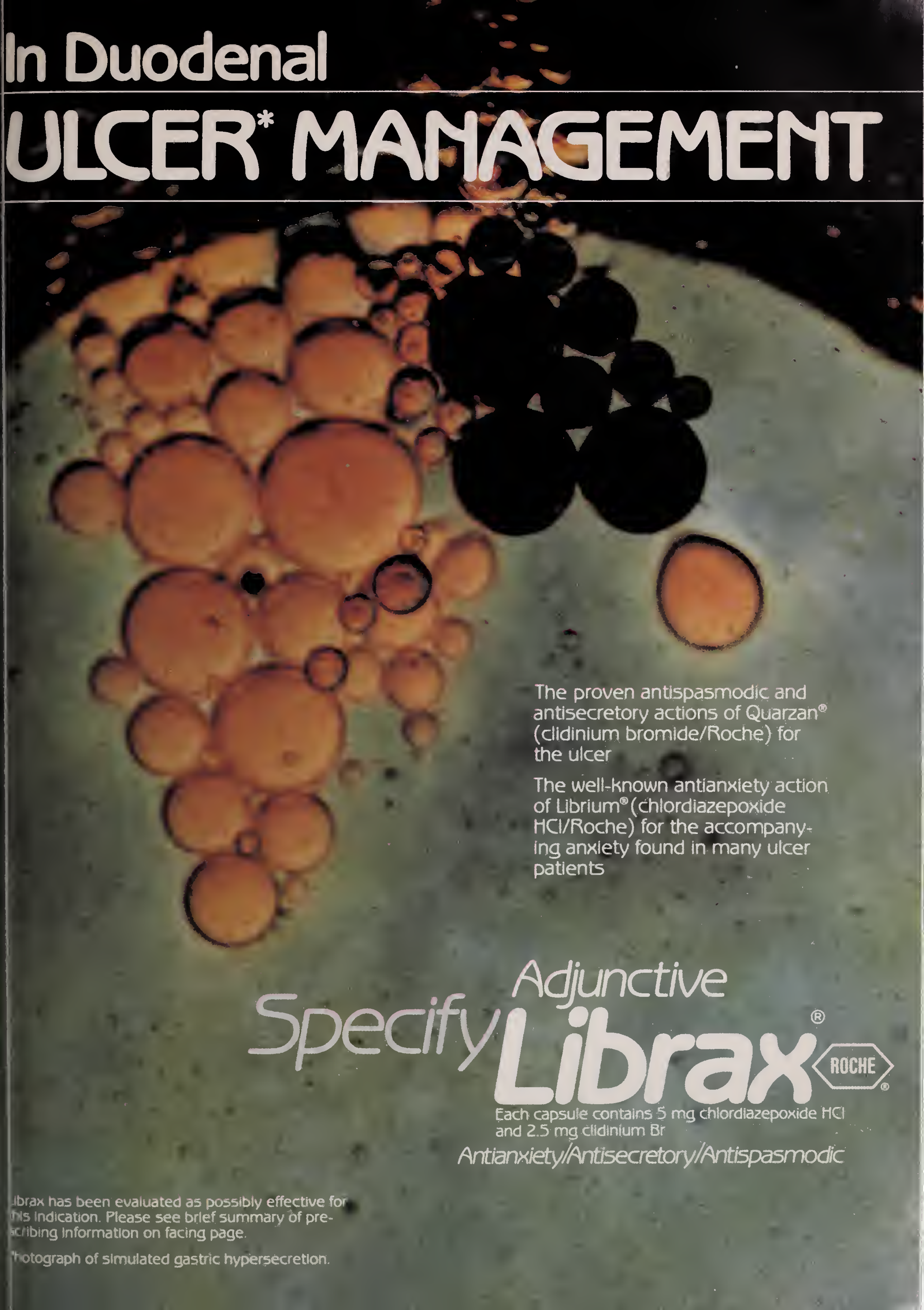

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ibrax has been evaluated as possibly effective for his indication. Please see brief summary of prescribing information on facing page.

hotograph of simulated gastric hypersecretion.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional model illustrates dramatically the benefits of a successful weight loss program.

40
35
30
25
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15
getting there...

...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.

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Tenuate® Dospan® CIV

(diethylpropion hydrochloride NF)

75 mg. controlled-release tablets

the #1 prescribed anorectic

An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Warnings and Precautions on this page.

In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation."[2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate–it makes sense.
And it's responsible medicine.**

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Tenuate® CIV
(diethylpropion hydrochloride NF)

Tenuate Dospan® CIV
(diethylpropion hydrochloride NF)
controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states Patients with a history of drug abuse During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: It tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children ~~under 12 years~~ of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored Titration of dose or discontinuance of Tenuate may be necessary

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System.* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage

Product Information as of January, 1980

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References: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 /TWX 910-221-0300

THE PRIVATE SECTOR has made a great step forward in restraining medical care costs in the face of double-digit inflation, a nationwide television audience will be told by James H. Sammons, M.D., executive vice-president of the AMA. Appearing on the program "It's Your Business," produced by the U.S. Chamber of Commerce, Dr. Sammons said inflation, government spending, government regulation, increased demand and new technology "all cause increased costs." If incentives are to be placed in the system to hold down costs, "then there's got to be some cost sharing" between the patient and insurer, employee and employer, and government recipients (not the poor).

ALL JCAH STANDARDS will be rewritten to focus on elements essential to quality patient care and to eliminate any unnecessary requirements and ambiguity, the Board of Commissioners of the Joint Commission on Accreditation of Hospitals voted. Health care facilities will be encouraged to meet the intent of the standards using methods suitable to their circumstances, the commissioners said. The Board acted after reviewing the final report of an ad hoc committee appointed last summer to study criticism directed at the JCAH by the AMA and the American Hospital Association. Complaints by the two parent organizations included ambiguity of the standards, repetitious administrative activities, arbitrary interpretations by on-site evaluators, and lack of flexibility for individual hospitals and medical staffs. In addition to the AMA and AHA, the parent organizations are the American College of Physicians, American College of Surgeons, and American Dental Association.

TWO HUNDRED MAGAZINE and newspaper publishers have received letters from the AMA urging them to give "thoughtful consideration to refusing tobacco product advertising." The letter cites evidence that smoking is hazardous to the health of smokers and to all who live and work with them. In another letter, the AMA urged television network officials to remove death-defying stunts from their programming. Not only are the stunt people sometimes injured or killed, the letter said, but so are those who try to imitate the death-defying acts. The letters were prepared following actions of the House of Delegates at the 1980 Annual and Interim Meetings.

IF YOU ARE THINKING of buying or selling a medical practice, you will be interested in the new AMA booklet *Valuing a Medical Practice*. The booklet guides the reader through the complex process of assessing the many tangible and intangible elements that determine the worth of a practice. It covers assets from earnings and equipment to leases and good will. To order write AMA Order Dept., OP-117, P.O. Box 821, Monroe, Wis. 53566. The booklet costs $5 for 1-10 copies, $4.50 for 11-49 copies. There is a handling charge of $1.50 for orders of $10.99 or less and $2 for orders of $11 or more.

NO SMOKING SIGNS for office display are available through the AMA Order Dept. Cost is $1.50 each for 1-99; $1.40 each for 100-499; and $1.35 each for 500 or more. There is a handling charge of $1.50 for orders of $10.99 or less; $2 for larger orders. Write AMA Order Dept., OP-175, P.O. Box 821, Monroe, Wis. 53566.

THE AMA AND THE AMERICAN Academy of Pediatrics offered their combined expertise and resources to assist the Food and Drug Administration in redrafting a new quality control rule for infant formulas that will assure the continued availability of formulas at reasonable prices. In a joint statement to the FDA, the two organizations urged withdrawal of proposed regulations. The AMA and AAP said their analysis indicates that the proposed regulations would add no assurance of product safety or nutritional adequacy beyond that already provided under the Infant Formula Act of 1980; that the regulations would also increase the costs for all infant formulas dramatically, threaten the continuance of specialized infant dietary formulas of limited market demand, and severely inhibit new product and manufacturing process development.

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesday)

Nov. 18-20	Clinical Advances in Pediatrics (The Children's Mercy Hospital)

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

June 25	Differentiation of Brain Enhancement by CT (Truman Medical Center)
July 17-19	The Long Weekend: Endocrinology (Four Seasons Resort, Lake of the Ozarks)
Sept. 25-26	The Long Weekend: Cardiovascular Disease and Critical Care (Alameda Plaza Hotel)
Oct. 29-31	Annual Fall Clinical Conference — Kansas City Southwest Clinical Society (Alameda Plaza Hotel)
Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine

510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Oct. 1-3	50th Anniversary Celebration
Oct. 2	Tenth Annual Wendell G. Scott Lecture

University of Missouri School of Medicine Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Aug. 6-7	Fourth Annual Workshop in Soft Tissue Surgery
Aug. 8, 9	Physicians' Update on Emergency Patient Care (Tan-Tar-A, Lake Ozark)
Sept. 10, 11	GI Fall Conference
Oct. 2-4	Missouri Ear, Nose and Throat Society Fall Meeting (Lodge of the Four Seasons, Lake Ozark)
Oct. 23, 24	22nd Annual M.D. Day
Oct. 29-31	Third Annual Advances in Rheumatology Symposium
Nov. 5, 6	M.D. Day West (Hilton Harvest House, Boulder, Colo.)
Nov. 13, 14	Dysphagia Conference
Nov. 18, 19	The Physician and the Infection Control Committee
(1982) **Feb. 15-17**	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10, 11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29, 30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	Group Relations Conference
Apr. 22, 23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

(Continued on next page)

Continuing Education Coming Events

(Continued from page 317)

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Nov. 13-15	Eighth Annual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
Dec. 10-12	Current Concepts in Cancer Therapy

Missouri Perinatal Association
P.O. Box 1431, Jefferson City 65102
***Contact:* Judy Sommers**

Oct. 15-17	Third Annual Meeting — Missouri Perinatal Association (The Ramada Inn, Columbia)

Ed Bixby Institute for Postgraduate Education
Research Medical Center
2316 E. Meyer Blvd., Kansas City 64132
(816) 276-4167

Aug. 5	Multisystem Trauma

St. Louis University Medical Center
Continuing Education
1325 S. Grand Blvd., St. Louis 63104
(314) 664-9800, Ext. 127
***Contact:* John A. Grellner, Director**

Oct. 7	Symposium on Clinical Dermatology

> We all have something to fall back on and I never knew a phony who didn't land on it eventually.
>
> —Wilson Mizner
> (1876-1933)

A New Start
A New Hope
A New Way of Life

For the Treatment of Alcoholism

Hyland Center

A Division of St. Anthony's Medical Center

10020 Kennerly Rd
St. Louis, MO 63128
(314) 525-7200

MSMA Members Receive Physician's Recognition Award

Fifty-two MSMA members qualified for the MSMA-AMA Physician's Recognition Award in 1980.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in MISSOURI MEDICINE as they are received from the AMA.

R. Philip Acuff, St. Joseph
George D. Amromin, Columbia
Lowry K. Arnold, Kansas City
V. Bryce Ballard, Kansas City
Charles W. Barbee, Columbia
Chester I. Bare, Raytown
Terrence A. Bidnick, Lee's Summit
Virgil R. Bleisch, St. Louis
James G. Blythe, Creve Coeur
Martin H. Boone, Springfield
Curtis H. Bourgeois, Columbia
John H. Cadice, Florissant
Donald E. Callahan, St. Louis
Charles A. Clough, Kansas City
Sherman W. Cole, Kansas City
Julian R. Comer, Hannibal
Donald R. Davis, Kansas City
Mariano N. Floro, Creve Coeur
George J. Fuchs, Columbia
James H. Garner, Kansas City
Larry F. Glaser, Kansas City
Kenneth L. Goetz, Kansas City
Mario J. Guastello, Kansas City
John C. Hall, Kansas City
Hamner Hannah, Kansas City
Larry V. Hays, Kansas City
Thomas M. Holder, Kansas City
Otis E. James, Kansas City
Ronald C. James, Columbia
Harry S. Jonas, Kansas City
Charles R. Kelly, Kansas City
Timothy D. Kennedy, Kansas City
Mordecai Kopperman, Kansas City
Charles M. Linsenmeyer, St. Charles
Alexander G. Mallouk, Kansas City
Teodoro A. Manubay, Kennett
Wayne E. Mason, Kansas City
Andrew McCanse, Kansas City
Gerald W. Moritz, St. Louis
William L. Mundy, Kansas City
George C. Olive, Neosho
Larry W. Piebenga, Kansas City
William W. Pingleton, North Kansas City
Felix N. Sabates, Kansas City
Frederick C. Stidman, Joplin
Joseph C. Summers, Jefferson City
Jose A. Temporal, St. Louis
Donald W. Thiebeault, Kansas City
Bennie J. Throne, Kansas City
Harold W. Voth, Kansas City
Charles L. Weinstein, Kansas City
John E. Wolfe, Springfield

NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

Dr. Lamb

Jerome Lamb, M.D., a 1981 graduate of St. Louis University School of Medicine, received several honors at the National Student Research Forum held recently in Galveston, Tex.

Dr. Lamb presented a technical paper, "Comparative Evaluation of Synthetic Meshes Used for Abdominal Wall Replacement," for which he won the American Medical Association Award of Excellence in clinical research applying to the clinical management of patients. He also received first place in the Roche Laboratories Award in clinical science and second place from Meade Johnson Laboratories for excellence in research.

In addition, Dr. Lamb was presented $150 from the local AOA Research Forum Award earlier this year, which entitled him to compete nationally at the University of Texas, Medical Branch.

Randolph L. Berens, Ph.D., assistant research professor of internal medicine, was awarded at $167,008, three-year grant from the National Institute of Allergy and Infectious Diseases to study African sleeping sickness. He will study purine metabolism in the organisms responsible for this disease, the salivarian trypanosomes.

Max Jellinek, Ph.D., associate professor of surgery, was awarded a three-year, $121,240 grant from the National Institute of Arthritis, Metabolism and Digestive Diseases to improve the method of preserving and storing donor kidneys destined for transplantation. The present procedure for kidney storage consists of pumping a suitable cold solution through the kidney for 24 to 48 hours. With increased sharing of donor kidneys among U.S. Transplant Centers, it becomes essential to increase the safe period of preservation.

In addition, many donor kidneys, when received for transplantation, have suffered considerable damage from lack of oxygen prohibiting their use for transplantation. Dr. Jellinek's study will also try to implement a treatment to revitalize damaged kidneys so they may be safely used for transplantation.

In order to accomplish these goals, kidneys will be perfused by changing the oxidation-reduction potential of the perfusate with an electrochemical redox device developed by the research group. With the device, the investigators are able to move electrons into or out of the perfusate automatically as needed to establish the optimal redox potential required for such treatment.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Elizabeth Garrett, a second-year resident in the Family and Community Medicine Department, has received a $1,500 award from the American Academy of Family Physicians.

Dr. Garrett, who graduated in 1979 from the School of Medicine, was one of 20 recipients from 195 candidates selected on the basis of scholastic achievement, leadership and qualifications for and interest in family practice.

Dr. Javad Kashani, assistant professor of child psychiatry, was an after dinner speaker along with *Gov. Christopher Bond* at the 25th annual meeting of the Missouri Mental Health Association in Columbia. Dr. Kashani spoke on "Childhood Depression."

Dr. Armando Favazza, professor of psychiatry, was a speaker at the spring meeting of the Michigan Psychiatric Society. His topic was "A New Cultural Psychiatry."

Two University of Missouri-Columbia medical students who competed nationally for grants for special programs will be funded through the National Fund for Medical Education.

James E. Nahlik will spend a year in geriatric medicine studies working with *Dr. Derek Gill* in the Department of Family and Community Medicine at UMC and in Aberdeen, Scotland, with a geriatric consultant. He will receive $3,800 for his project to be carried out in 1982.

Mr. Nahlik was graduated from the University of Missouri-Kansas City before entering medical school in 1979. A St. Louisan, he was awarded a four-year academic scholarship to UMKC from the McDonnell Scholarship Foundation. At graduation, there, he received a Dean's Award in recognition of outstanding service and achievement.

Diane M. Stelzer will spend 12 weeks working in an Appalachian work/study project with the Lincoln (County) Primary Care Center at Hamlin, W.V. during the summer of 1982. She will receive $1,600.

Ms. Stelzer, a graduate of Rockhurst College, Kansas City, received her undergraduate degree summa cum laude. She is beginning her third year in medical school this summer.

WASHINGTON UNIVERSITY

David M. Kipnis, M.D., Busch Professor and chairman of the Department of Medicine, has been elected to the National Academy of Sciences, one of the highest honors that can be given to an American scientist or engineer.

Dr. Kipnis was one of 60 new members elected to the academy in recognition of his distinguished and continuing achievements in diabetic and metabolic research. He has served as chairman of the National Diabetes Advisory Board which monitors the federal government's research program in diabetes.

A native of Baltimore, Md., Dr. Kipnis earned the M.D. degree, summa cum laude, in 1951 from the University of Maryland School of Medicine. He trained at Johns Hopkins University, Duke University and the University of Maryland hospitals before coming to Washington University in 1955 as a reseach fellow to work with *Dr. Carl F. Cori*, the 1947 Nobel Laureate in Medicine.

In addition to being chairman of the Department of Medicine, Dr. Kipnis is the physician-in-hief at Barnes Hospital and a member of the taffs of Jewish Hospital and St. Louis Children's Hospital.

Edward G. Jones, M.D., Ph.D., has been ppointed director of the Medical School's James L. O'Leary Division of Experimental Neurology nd Neurological Surgery. The first person to old this post, he will have an appointment in eurology and neurological surgery but will reain his professorship in anatomy/neurobiology.

Dr. Jones also was named Professor of Exerimental Neurology and Neurological Surgery nd the Ethel Ronzoni and George H. Bishop cholar in Neuroscience at that same time. Curently, he is also senior scientist of the McDonnell Center for the Study of Higher Brain Functions.

The new division, named in memory of Dr. James L. O'Leary, former professor and head of neurology, will bring together basic scientists in neurology and neurosurgery. As its director, Dr. Jones will serve a scientific leadership role to foster the cause of basic neurological science among graduate students, fellows and clinicians in the department.

A member of the staff of Washington University School of Medicine since 1972, Dr. Jones is best known for his work on the anatomy of sensory-motor interaction of the cerebral cortex. His most recent work has revolved around the way the cortex adapts in animals in utero during injury. This may lead to an experimental model whereby researchers might be able to understand how the human brain compensates for birth injury or the kind of insults the fetal brain might be subjected to while in its mother's womb.

Dr. Jones received his M.D. degree at the University of Otago in Dunedin, New Zealand in 1962 and his Ph.D. at the University of Oxford, England, in 1968. His awards include the Symington Memorial Prize of the Anatomical Society of Great Britain and Ireland and the Rolleston Memorial Prize of Oxford University.

UNIVERSITY OF MISSOURI-KANSAS CITY

Fifty-seven School of Medicine students received their doctor of medicine degrees on May 9 at graduation ceremonies. On May 8, Washington University Chancellor *William Danforth* delivered the Dorothy Lee Ross Lecture on "Medicine in Society." Students took the Oath of Physicians on May 8, at the UMKC Performing Arts Center.

Robert J. Dockhorn, M.D., clinical professor of pediatrics, was elected president of the American College of Allergists at the organization's 37th annual meeting. Dr. Dockhorn is director of allergy and immunology training programs at UMKC and Children's Mercy Hospital.

The *UMKC Friends of the Library* have voted to purchase 35 medical atlases for the Health Sciences Library at the School of Medicine.

Harry S. Jonas, M.D., dean of the School of Medicine, led a group of members of the Association of Professors of Gynecology and Obstetrics and the American College of Obstetricians and Gynecologists on a trip to the People's Republic of China in May. The group arrived in Peking on May 14 for a five-day stay. Other stops included Hangchow, Harbin and Shanghai.

THERE'S MORE TO ARMY RESERVE MEDICINE THAN THE ARMY

ADD THE PRESTIGE OF AN OFFICER'S COMMISSION TO YOUR MEDICAL CAREER WITHOUT LEAVING YOUR HOMETOWN. AS A QUALIFIED PHYSICIAN, YOU'LL RECEIVE A DIRECT ARMY RESERVE COMMISSION. YOU'LL SERVE YOUR COUNTRY AS A OFFICER AND RECEIVE AN OFFICER'S PAY FOR EACH MONTHLY AND ANNUAL TRAINING SESSION YOU ATTEND.

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FOR ONE WEEKEND A MONTH, YOU CAN BE THE KIND OF DOCTOR MANY DOCTORS WOULD LIKE TO BE. THE ACTUAL TIME COMMITMENT IS MINIMAL. RESERVE MEMBERSHIP TAKES ONLY 16 HOURS EACH MONTH AND TWO CONSECUTIVE WEEKS EACH YEAR.

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Pioneers in Medicine
For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-CI™

For the Majority of
Steroid-Responsive Dermatoses*
Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

Boots Pharmaceuticals, Inc.
NDC 0524-0026-5
F-E-P CREME®
ANTIFUNGAL-ANTI-INFLAMMATORY-ANESTHETIC
ONE HALF OUNCE

r Potassium Supplementation nproved Compliance...

WIN-K®

h 15 ml supplies 20 mEq of potassium ions as a combination of potassium conate and potassium citrate in a sorbitol and saccharin solution.

e good tasting potassium supplement
Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
Pleasant taste and convenient dosage aid patient compliance.
The organic salt of potassium can be given as a liquid without producing significant gastric ymptoms and without an untoward effect on he mucosa of the small intestine.[1]

eeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., hiladelphia, page 1959.

In Cases with Chloride Deficiency...

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz)	NDC 0524-0015-16

Federal law prohibits dispensing without prescription

February 1980

TWIN-K®

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabiliz on digitalis can develop digitalis toxicity when the serum pota sium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 flu ounces of water or fruit juice, two to four times a day. This w supply 40 to 80 mEq of potassium ions. The usual preventati dose of potassium is 20 mEq per day while therapeutic dos range from 30 mEq to 100 mEq per day. Because of the potent for gastrointestinal irritation, undiluted large single doses (30 ml more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no averag total daily dose can be defined, but must be governed by clo observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz)	NDC 0524-0021-

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potass ions and 4 mEq of chloride ions as a combination of potassiu gluconate, potassium citrate, and ammonium chloride, in a sorbi and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatme of hypokalemia which may occur secondary to diuretic corticosteroid administration. It may be used in the treatment cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the trea ment of hypokalemia since chloride and potassium deficienci are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreate Addison's disease, adynamia episodica hereditaria, acute deh dration, heat cramps and hyperkalemia from any cause. T product should not be used in patients receiving aldosteror antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacemer Excessive, undiluted doses of TWIN-K-Cl may cause a sal laxative effect.

To minimize gastrointestinal irritation, it is recommended th TWIN-K-Cl be taken with meals or diluted with water or fruit juic A tablespoonful (15 ml) in 8 ounces of water is approximate isotonic. More than a single tablespoonful should not be take without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significar role in body physiology. The serum level of potassium is normal 3.8-5.0 mEq/liter. While the serum or plasma level is a poo indicator of total body stores, a plasma or serum level belo 3.5 mEq/liter is considered to be indicative of hypokalemia

The most common cause of hypokalemia is excessive loss c potassium in the urine. However, hypokalemia can also occur w vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral admini tration of potassium supplements. With normal kidney function, i difficult to produce potassium intoxication by oral administratio However, potassium supplements must be administered w caution since, usually, the exact amount of the deficiency is n accurately known. Checks on the patient's clinical status an periodic EKG and/or serum potassium levels should be made High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest

In patients with hypokalemia who also have alkalosis and chloride deficiency (hypokalemic hypochloremic alkalosis), ther will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of th extremities, flaccid paralysis, listlessness, mental confusion, wea ness and heaviness of the legs, fall in blood pressure, cardia arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the wave, widening and slurring of the QRS complex, changes of th ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses large than 30 ml can produce gastric irritation with nausea, vomiting diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons wi normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fat hyperkalemia can result. It is important to note that hyperkalem is usually asymptomatic and may be manifested only by a increased serum potassium concentration with or without EK changes.

Treatment measures include:

1. Elimination of potassium containing drugs or foods
2. Intravenous administration of 300 to 500 ml/hr of a 10 dextrose solution containing 10-20 units of crystalline insuli per 1000 milliliters.
3. Correction of acidosis.
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilize on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6 fluid ounces of water or fruit juice, two to four times a da This will supply 30 to 60 mEq of potassium ions and 8 to 16 mE of chloride ions. The usual preventative dose of potassium 20 mEq per day while therapeutic doses range from 30 mE to 100 mEq per day. Because of the potential for gastrointestin irritation, undiluted large single doses (30 ml or more c TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no averag total daily dose can be defined, but must be governed by clos observation for clinical effects

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-1

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PAIN AND TENSION...
Double fault for
weekend warriors
ACE THE ACHE
with

Equagesic®Ⓘⓥ

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION: **An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.**

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children. Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma, shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants, e g , caffeine Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting. Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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for mild to moderate pain

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain

CONTRAINDICATION. Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers alcohol, or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients see **Management of Overdosage**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently, physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less, and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician, the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol.

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness sedation, nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness headache weakness, euphoria dysphoria and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration, cyanosis) extreme somnolence progressing to stupor or coma, pupillary constriction, and circulatory collapse In addition to these characteristics, which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea cardiac arrest, and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms the patient may feel less ill; however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice coagulation defects hypoglycemia encephalopathy, coma and death may follow Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V ,simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient s condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions

Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine which may cause anorexia nausea, vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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New Members

Ziad Abu-Dalu, M.D., 100 N. Euclid Ave., St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Abu-Dalu is a native of Cairo, received his preliminary education at Ain Shams University and his M.D. degree at Ain Shams University in 1958. He specializes in family practice.

Mahendra Bhuyan, M.D., 6500 Chippewa, Suite 302, St. Louis 63109, has become a member of St. Louis Metropolitan Medical Society. Dr. Bhuyan is a native of India, received his preliminary education at the University of Delhi and his M.D. degree at the University of Delhi in 1967. He specializes in internal medicine.

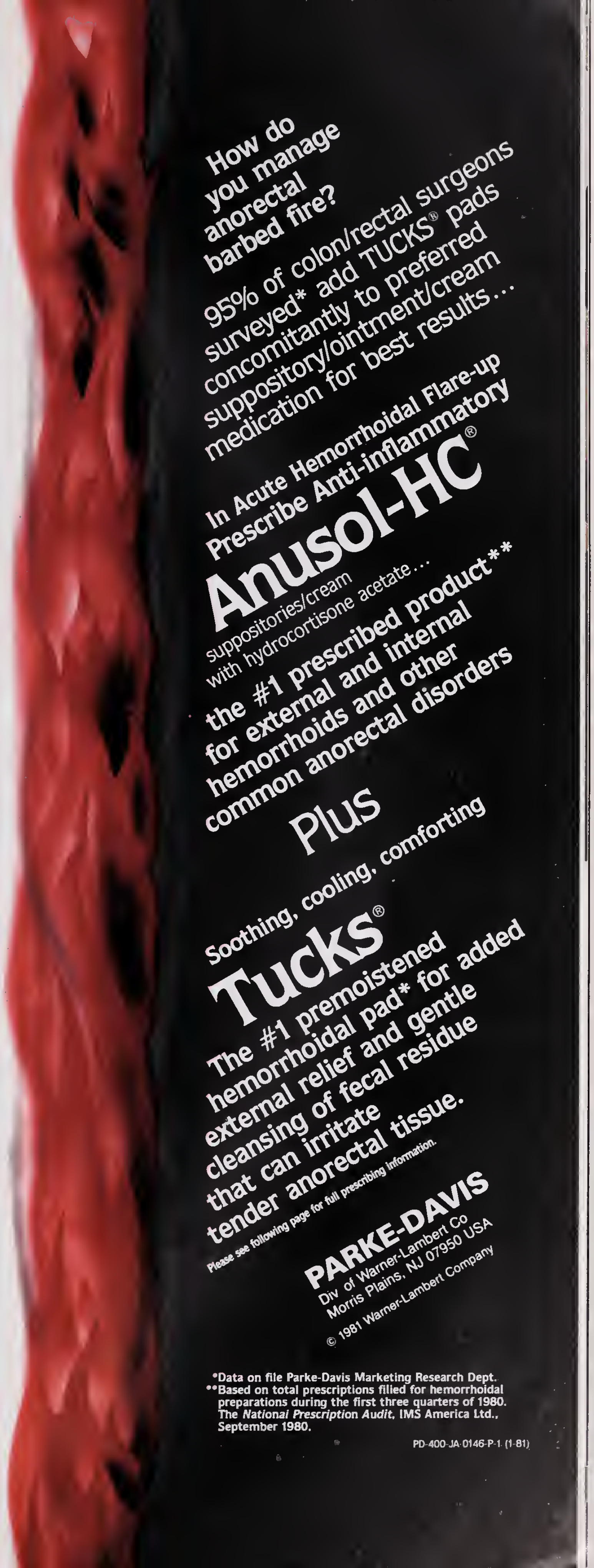
Natalie A. Caldwell, M.D., Wohl Clinic, 3200 S. 13th, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Caldwell is a native of Syracuse, N.Y., received her preliminary education at the College of Mount St. Vincent and her M.D. degree at State University of New York Upstate in 1975. She specializes in internal medicine.

Teresita A. Cometa, M.D., 2639 Miami St., St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Cometa is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1964. She specializes in family practice.

Angela Grace Condy, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Condy is a native of Canada, received her preliminary education at the University of San Diego and her M.D. degree at St. Louis University in 1980. She specializes in emergency medicine.

Robert E. Cuddihee, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Cuddihee is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1963. He specializes in internal medicine.

Fe Poblete Fuentes, M.D., 5203 Chippewa, St. Louis 63109, has become a member of St. Louis Metropolitan Medical Society. Dr. Fuentes is a native of the Philippines, received



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Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.
Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.
The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.
Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.
Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.
Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.
Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.
Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.
Prolonged or excessive use of corticosteroids might produce systemic effects.
If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.
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Anusol-HC is not for ophthalmic use.
Pregnancy
See "WARNINGS"
Pediatric Use
Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.
Dosage and Administration: Anusol-HC Suppositories—
Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.
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NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.
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Store between 59°-86°F (15°-30°C).
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her preliminary education at the University of the East and her M.D. degree at the University of the East in 1970. She specializes in ophthalmology.

Allen D. Galster, M.D., 660 S. Euclid, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Galster is a native of Sioux Falls, S.D., received his preliminary education at the University of South Dakota and his M.D. degree at Washington University in 1977. He specializes in general surgery.

Abdollah Gilani, M.D., 220 Highway 13 S., Richmond 64085, has become a member of Lafayette-Ray County Medical Society. Dr. Gilani is a native of Iran, received his preliminary education at Universitat (Georg-August) Gottingen and his M.D. degree at Universitat Hamburg in 1964. He specializes in general surgery.

P. G. Shankar Giri, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Giri is a native of India, received his preliminary education at St. Joseph's College and his M.D. degree at St. John's Medical College in 1973. He specializes in therapeutic radiology.

Elizabeth A. Hodapp, M.D., 660 S. Euclid Ave., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Hodapp is a native of Harvey, Ill., received her preliminary education at Yale College and her M.D. degree at Harvard in 1975. She specializes in ophthalmology.

Stephen E. Lehnert, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Lehnert is a native of Chicago, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1980. He specializes in obstetrics and gynecology.

Christopher E. McCarthy, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. McCarthy is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1979. He specializes in internal medicine.

Christopher J. Meoli, D.O., 1528 Sunset, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Meoli is a native of New York, N.Y., received his preliminary education at C. W. Post ollege and his D.O. degree at the Kansas City ollege of Osteopathic Medicine in 1972. He spe- ializes in radiology.

Diane F. Merritt, M.D., 234 Crandon, St. ouis 63105, has become a member of St. Louis Ietropolitan Medical Society. Dr. Merritt is a ative of Cleveland, Ohio, received her prelimi- ary education at Miami University and her I.D. degree at New York University in 1975. he specializes in obstetrics and gynecology.

Mark W. Moritz, M.D., 4989 Barnes Hospital laza, St. Louis 63110, has become a member of t. Louis Metropolitan Medical Society. Dr. Ioritz is a native of New York, N.Y., received his reliminary education at Brown University and is M.D. degree at Johns Hopkins University in 977. He specializes in general surgery.

Lan K. Nguyen, M.D., Kelling Clinic, P.O. ox 169, Waverly 64096, has become a member f Lafayette-Ray County Medical Society. Dr. guyen is a native of Viet Nam, received his reliminary education at Saigon Faculty of Scien- es and his M.D. degree at Saigon Medical chool in 1967. He specializes in general surgery.

Steven B. Perlmutter, M.D., 615 S. New Bal- s Rd., St. Louis 63141, has become a member of t. Louis Metropolitan Medical Society. Dr. rlmutter is a native of Brooklyn, N.Y., received s preliminary education at Sarah Lawrence Col- ge and his M.D. degree at Washington Uni- rsity in 1980. He specializes in opthalmology.

John H. Renner, M.D., St. Mary's Hospital, 01 Memorial Dr., Kansas City 64108, has be- ome a member of Jackson County Medical Soci- ty. Dr. Renner is a native of Newtown, Ind., eceived his preliminary education at Dartmouth ollege and his M.D. degree at George Washing- on University in 1958. He specializes in family ractice.

Hamid Sajjadi, M.D., Truman Medical Cen- r, Kansas City 64108, has become a member of ckson County Medical Society. Dr. Sajjadi is a ative of Iran, received his preliminary education the University of Santa Clara and his M.D. egree at Creighton University in 1977. He spe- alizes in ophthalmology.

Mohammad Ali Sheverini, M.D., 4320 Wor- ll Rd., Suite 510, Kansas City 64111, has be- me a member of Jackson County Medical Soci- y. Dr. Sheverini is a native of Iran, received his

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preliminary education at Tehran University and his M.D. degree at Tehran University in 1962. He specializes in thoracic and general surgery.

Raymond E. Shively, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Shively is a native of Cincinnati, Ohio, received his preliminary education at the University of Cincinnati and his M.D. degree at the University of Cincinnati in 1971. He specializes in plastic surgery.

Vijayalakshmi Vallurupalli, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Vallurupalli is a native of India, received her preliminary education at Maris Stella College and her M.D. degree at Guntur Medical College in 1972. She specializes in anesthesiology.

John C. VanderWoude, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. VanderWoude is a native of Sioux Falls, S.D., received his preliminary education at Augustana College and his M.D. degree at Washington University in 1978. He specializes in general surgery.

In Memoriam

Thomas R. McArtor, M.D., Box 135, Browning 64630; graduate of Washington University, 1935; member of Grand River County Medical Society; aged 76; died April 7, 1981.

Topsy Hatcher Whitaker, M.D., P.O. Box 218, East Prairie 63845; graduate of National University of Arts and Sciences Medical Department, 1918; member of SEMO County Medical Society; aged 88; died April 9, 1981.

Apostle D. Karandjeff, M.D., 1035 Bellevue, Room 313, St. Louis 63117; graduate of the University of Illinois, 1944; member of St. Louis Metropolitan Medical Society; aged 64; died April 14, 1981.

A. L. Crawford, M.D., 2931 Pearl Ave., Joplin 64801; graduate of St. Louis University, 1939; member of Jasper County Medical Society; aged 71; died May 4, 1981.

Richard F. Williams, M.D., 211 E. Chestnut, Charthage 64836, has become a member of Jasper County Medical Society. Dr. Williams is a native of Monett, received his preliminary education at Washington University and his M.D. degree at Washington University in 1977. He specializes in family practice.

John Charles Williamson, M.D., #3 Doctor's Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Williamson is a native of Princeton, N.J., received his preliminary education at the U.S. Naval Academy and his M.D. degree at the University of Texas Health Science Center in 1976. He specializes in urology.

Mostafa K. Zanaty, M.D., 10th & Ward, Suite B, Caruthersville 63830, has become a member of Pemiscot County Medical Society. Dr. Zanaty is a native of Egypt, received his preliminary education at Cairo University and his M.D. degree at Cairo University in 1959. He specializes in family practice.

Herbert E. Zeiger, Jr., M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Zeiger is a native of Langdale, Ala., received his preliminary education at Samford University and his M.D. degree at the University of Alabama in 1974. He specializes in neurosurgery.

New Student Members

St. Louis University

Anton G. Beffa
Claude J. Deen
Dan S. Fairman
Laura Jarmoc
Shelia Lemley
Charles J. Pruchno
Keith M. Starke

University of Missouri-Columbia

Kipp A. Young

University of Missouri-Kansas City

Carl J. Fichtenbaum
John Joseph Grechus
Craig S. Holzem
Ana M. Larocca
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*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

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Capsules and Oral Solution

For complete information, consult Official Package Circular (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29†	38†
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus* and *Streptococcus pyogenes	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth All 14 healed, regardless of which antibiotic was administered.	(14 patients)	9	5
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	**102 patients**	**52 patients**	**50 patients**

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus*, 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes*, and 1% beta-hemolytic *Streptococcus*.‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

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WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q 6h.

Children: 50 mg./Kg./day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B.: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS

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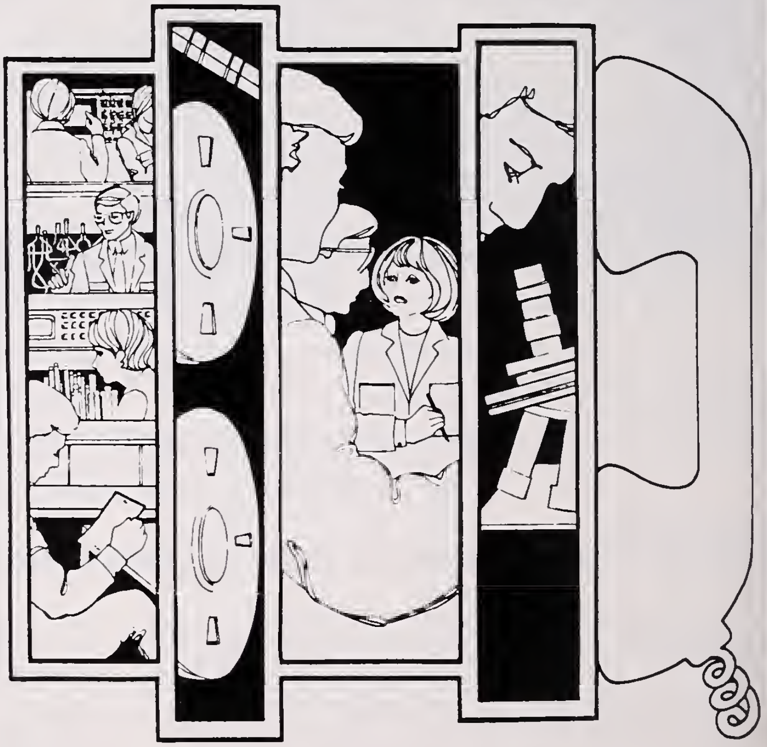

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Missouri Medicine in Review

LEO H. POLLOCK, M.D.

FORTY YEARS AGO

The Missouri Chapter of the American College of Chest Physicians was organized at a meeting in St. Louis on April 29. The organization's annual meeting will be held at the time of the Missouri State Medical Association Annual Session. Officers elected are president, Dr. Herbert L. Mantz, Kansas City; vice-president, Dr. E. E. Glenn, Springfield; and secretary, Dr. Paul Murphy, Koch.

The Paracelsus Collection of the St. Louis Medical Society was presented to the Society by Dr. Robert Schlueter in 1939. It is the larger of two Paracelsus collections in this country. The other is that of Dr. Constatine Hering and is in the library of the Hahnemann Medical College in Philadelphia.

The 92nd annual session of the American Medical Association will be held in Cleveland on June 2-6. The opening general meeting will be held on Tuesday evening, June 3, at which time a medal will be presented to the retiring president, Nathan B. Van Etten, New York. Dr. Frank H. Lahey, Boston, will be installed as President. Missouri will be represented by Drs. A. R. McComas, Sturgeon; H. L. Kerr, Crane; Robert E. Schlueter, St. Louis; and Rex L. Diveley, Kansas City.

TWENTY-FIVE YEARS AGO

The Seventh Annual Dr. F. G. Thompson, Sr. lecture will be presented in St. Joseph on May 21 by William Dameshek, M.D., Boston. His subject will be "The Spleen and Hypersplenism."

Charles E. Martin, M.D., St. Louis, is the newly elected treasurer of the American Academy of General Practice.

Emmett F. Hoctor, M.D., Farmington, was honored on March 23 for outstanding contributions to Creighton University.

B. F. Byland, Maryville, was appointed by the governor to fill the unexpired term of the late L. E. Dean, M.D. of Maryville as coroner of Nodaway County.

Arthur R. McComas, M.D., Sturgeon, was presented the Certificate of Merit of the University of Missouri Alumni Association at a luncheon meeting on April 11. It is the first to be presented to a member of the medical profession.

A special tribute was paid to the Rev. Alphonse M. Schwitalla, S.J., St. Louis, by his friends and associates at the St. Louis School of Medicine on April 7. James W. Colbert, Jr., M.D., dean of the School, unveiled a portrait of Father Schwitalla, Dean Emeritus, in the south wing of the School of Medicine.

TEN YEARS AGO

H. Denny Donnell, Jr., M.D. of Columbia, has been named director of the Bureau of Communicable Diseases of the State Division of Health. Dr. Herbert R. Domke, acting director of the division, made the announcement. The position had been vacated by the retirement of Dr. E. A. Belden of Jefferson City last June.

Gov. Warren E. Hearnes has signed into law Senate Bill No. 7 which provides that the transfusion of blood and the transplantation of organs are a service and not a sale and there is no warranty implied. The law becomes effective on September 28.

Ronald G. Evans, M.D., assistant professor of radiology, has been appointed professor and head of the Department of Radiology at Washington University School of Medicine. He succeeds Juan M. Taveras, M.D., who is leaving to head the Department of Radiology at Massachusetts General Hospital and Harvard Medical School in Boston, Mass.

David G. Hof, a second-year medical student at the University of Missouri-Columbia, has won a $500 medical student endowment award in a national competition for the best study of aerospace medical problems sponsored by the Society of United States Air Force Flight Surgeons. His manuscript is titled "Circadian Variations in Oxygen Toxicity Seizures."

Missouri Medicine

Volume 78, No. 7 (ISSN 0026-6620) July, 1981

Special Report

123rd ANNUAL SESSION

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MDS

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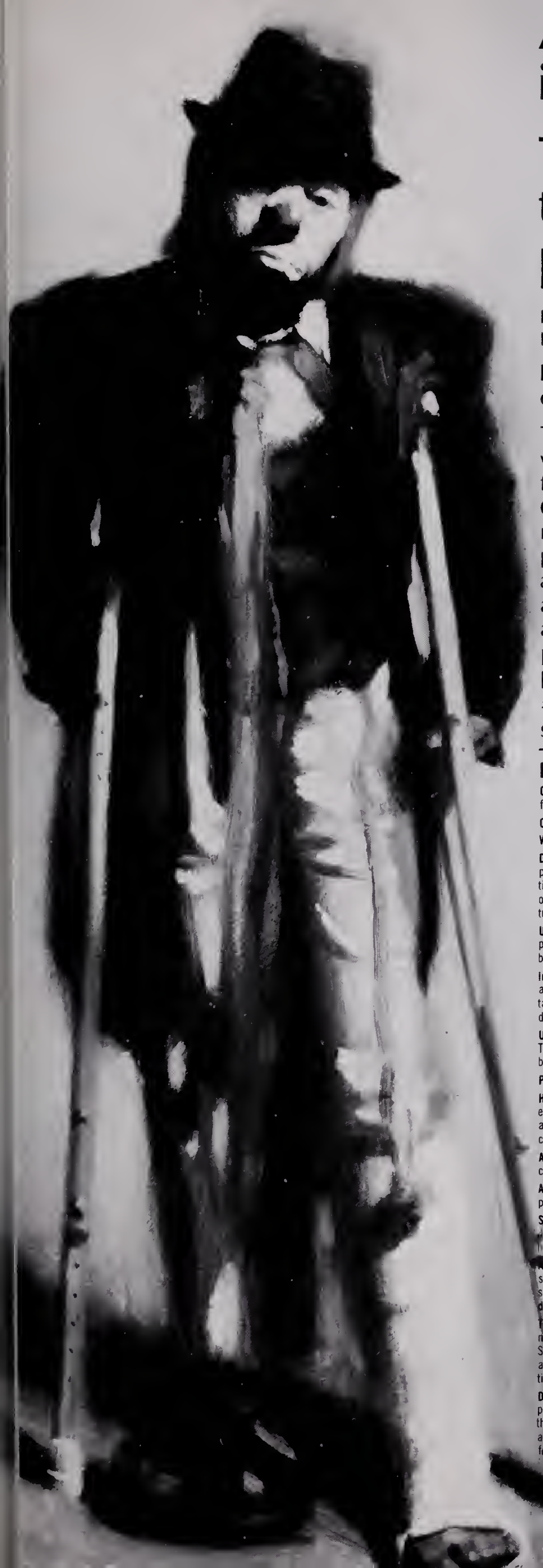

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WARNINGS:

Drug dependence: Empirin with Codeine can produce drug dependence of the morphine type and, therefore, has the potential for being abused. Psychic dependence, physical dependence, and tolerance may develop upon repeated administration of this drug and it should be prescribed and administered with the same degree of caution appropriate to the use of other oral, narcotic-containing medications. Like other narcotic-containing medications, the drug is subject to the Federal Controlled Substances Act.

Use in ambulatory patients: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

Interaction with other central nervous system (CNS) depressants: Patients receiving other narcotic analgesics, general anesthetics, phenothiazines, other tranquilizers, sedative-hypnotics, or other CNS depressants (including alcohol) concomitantly with Empirin with Codeine may exhibit an additive CNS depression. When such combined therapy is contemplated, the dose of one or both agents should be reduced.

Use in pregnancy: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

PRECAUTIONS:

Head injury and increased intracranial pressure: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries

Acute abdominal conditions: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

Allergic: Precautions should be taken in administering salicylates to persons with known allergies patients with nasal polyps are more likely to be hypersensitive to aspirin.

Special risk patients: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

ADVERSE REACTIONS: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

DOSAGE AND ADMINISTRATION: Dosage should be adjusted according to the severity of the pain and the response of the patient It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

DRUG INTERACTIONS: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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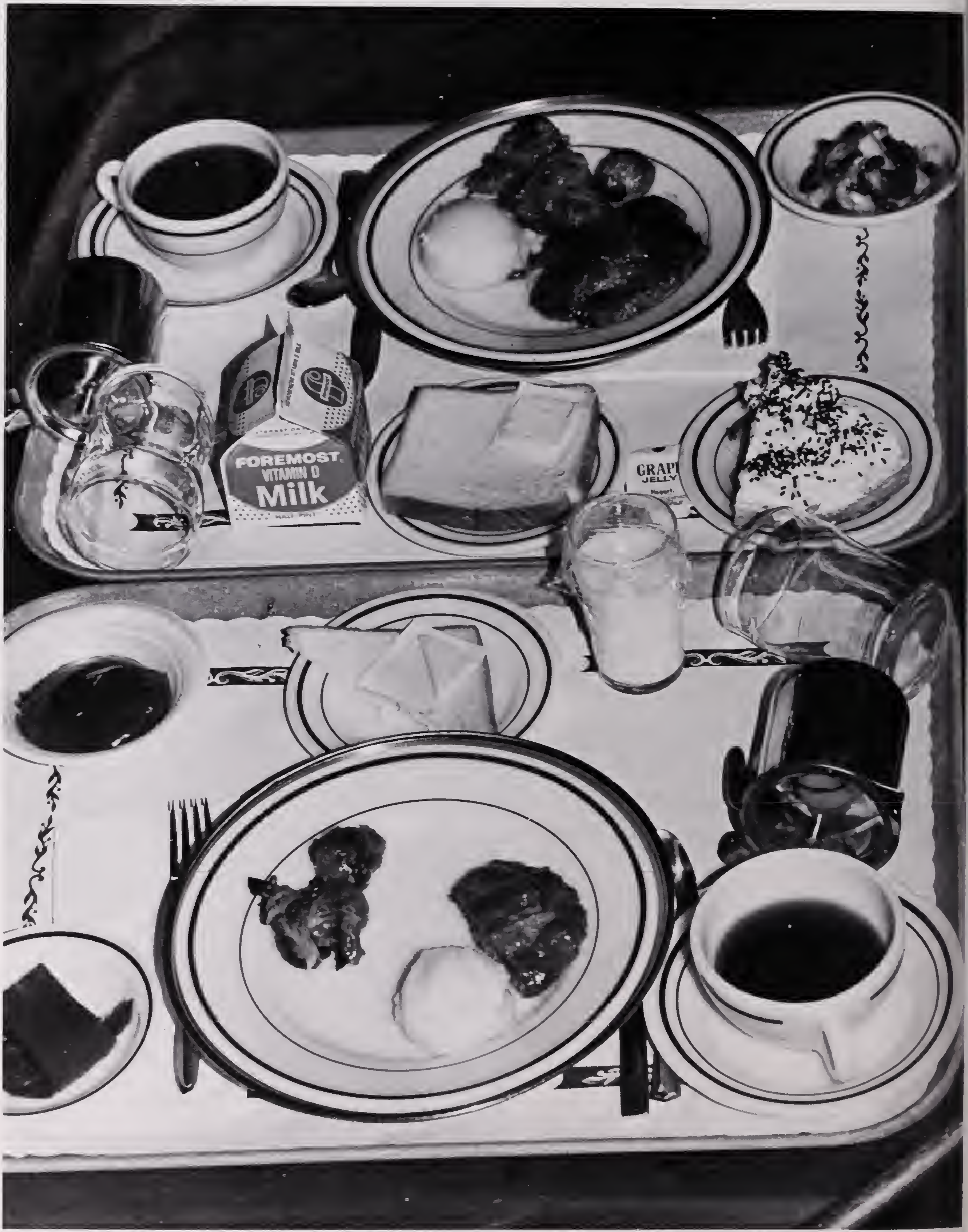
FOREMOST
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Editor's Corner

Cost (?) Containment (?)

Look at the photograph on the facing page. What do you see? There are two meals on trays. Look more carefully and you will see quite a difference between those two meals. The meal on the lower half of the photograph was purchased today. The meal on the upper half of the photograph was purchased with the same amount of money three years ago.

So what? What does this have to do with you and me?

Only this. We are attempting to show why a fixed figure of cost containment won't work. It won't work when physicians ride the hospitals as they do today. Neither will it work when inflation is unabated and the cost containment concept is applied to a single segment of our economy.

Don't get me wrong! I am not defending hospitals nor am I defending the medical profession. I have no patience with either because, on any given day, I could roam the hospital corridors and discharge 30% of the patients who wouldn't be there if they had to pay their own way. It takes doctors to put them there and hospitals to keep them. Both are feathering their own nests. Both know it very well.

Nevertheless, things are getting done in the hospitals which couldn't have been done. Those things are generally the result of technological sophistication. Compare the current cost of an F-15 fighter and its counterpart of 1960. Money, money — lots of money!

The results of such equipment outlay might not be as apparent to the patient as the difference in the two meals of the accompanying photograph but, if it is *your* heart, *your* aorta or *your* kidney, which way do you want it to go?

Wilfred E. Wooldridge, M.D.

Feelings vs

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

ustification as evidenced by their high levels of anxiety. It vas further noted that antianxiety drugs are not usually rescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories hey've heard about my being harmful and having the otential to produce physical dependence.

The FACT is that there are thousands of references in e medical literature documenting my efficacy and safety. xtensive and painstakingly thorough studies of toxicological ata conclude that I am one of the safest types of psycho- opic drugs available. Moreover, I do not cause physical ependence if the recommended dosage and therapeutic egimen are followed under careful physician supervision. owever, I can produce dependence if patients do not fol- w their physicians' directions and take me for prolonged eriods, at dosages that exceed the therapeutic range. atients for whom I have been prescribed should be cau- ous about their use of alcohol because an additive effect ay result.

Many of the most knowledgable people feel that I came the No. 1 prescribed medication in America because o other tranquilizer has been proven more effective. Or safer.

The FACT is they are right.

F a brief summary of product information on Valium (diazepam/Roche) Ⓒ, please see the following e. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

Valium® ⒸIV
diazepam/Roche

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect. *Adults*: Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d., adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients*: 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children*: 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months)
Supplied: Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50, available in trays of 10

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with

Equagesic®Ⓘⓥ

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*__INDICATIONS__: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g, alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION: **An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.**

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants e g, caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions. This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses peripheral edema and fever have also been reported

More severe cases, observed only very rarely may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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Down with pain
Step up to reliable relief

for mild to moderate pain

Wygesic® CIV

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION For the relief of mild-to-moderate pain

CONTRAINDICATION. Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS. CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers sedative-hypnotics or other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended. Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants. Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers alcohol or other CNS-active drugs. Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance. It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics. The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery. Patients should be cautioned accordingly

USAGE IN PREGNANCY Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine. The CNS depressant effect of propoxyphene may be additive with other CNS depressants including alcohol

ADVERSE REACTIONS The most frequent adverse reactions are dizziness sedation nausea and vomiting. These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation abdominal pain skin rashes light-headedness headache weakness euphoria dysphoria and minor visual disturbances. The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions. Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol tranquilizers sedative-hypnotics and other CNS depressants has an additive depressant effect. Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration cyanosis) extreme somnolence progressing to stupor or coma pupillary constriction and circulatory collapse. In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects. Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions a prominent feature in most cases of severe poisoning. Cardiac arrhythmias and pulmonary edema have occasionally been reported and apnea cardiac arrest and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours. However early recognition may be difficult since early symptoms may be mild and nonspecific. Evidence of liver damage is usually delayed. After the initial symptoms the patient may feel less ill however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin. In case of serious hepatotoxicity jaundice coagulation defects hypoglycemia encephalopathy coma and death may follow. Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity. A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation. The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene. An appropriate dose of one of these antagonists should be administered preferably I V simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory. In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures. Analeptic drugs e g caffeine or amphetamine should not be used because of their tendency to precipitate convulsions

Oxygen IV fluids vasopressors and other supportive measures should be used as indicated. Gastric lavage may be helpful. Activated charcoal can absorb a significant amount of ingested propoxyphene. Dialysis is of little value in poisoning by propoxyphene alone. Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed. Copious gastric lavage and or induction of emesis may be indicated. Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion. Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen. Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload. It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine which may cause anorexia nausea vomiting and drowsiness. Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week. Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity. Serial hepatic enzyme determinations are also recommended

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MSMA
MISSOURI STATE MEDICAL ASSOCIATION

NEWS ROUND - UP

July, 1981

1981 Legislative Session comes to an end

For the first time in many years, Missouri's Legislature joined the national trend of expanding the scope of practices of limited licensed health care professionals during the recently ended 81st General Assembly.

SB 91 (Optometrists — Use of Drugs) was passed and is on the Governor's desk. The bill was earlier amended to limit optometrists to use of three drugs and to increase their educational requirements as sought by the MSMA. A "mandatory referral" amendment proposed by the MSMA was **not** adopted, but a close compromise amendment was. It reads:

"Any optometrist authorized by the Board to administer diagnostic pharmaceutical agents shall refer a patient to a physician licensed under chapter 334, RSMo, if examination of the eyes indicates a condition, including reduced visual acuity, which requires medical treatment, further medical diagnosis or further refraction. This referral is not required on known or previously diagnosed conditions. The record of referral in the optometrist's notes shall have the standing of any business records. Any optometrist violating this section shall be subject to the provisions of section 336.110."

SB 340 (Expansion of Chiropractic) was also passed. The MSMA and others have requested that the bill be vetoed due to confusing language and the fact that portions of the bill conflict with SB 16 which deals with the state's licensing boards. SB 16 was the last bill passed during the session. SB 340's definition of chiropractic is:

"The practice of chiropractic is defined as the noncombative principle and practice of the science and art of examination, adjustment and treatment of malpositioned articulations and structures for the correction of the cause of abnormalities and deformities of the body. It shall not include the use of surgery, obstetrics, osteopathy, nor the administration or prescribing of any drug or medicine. The practice of chiropractic is declared not to be the practice of medicine and surgery or osteopathy within the meaning of chapter 334, RSMo, and not subject to the provisions of that chapter."

Other Bills Passed

SB 4 allows publicly owned hospitals to set up retirement systems outside LAGERS System. (Signed)

SB 16 allows the licensing boards to set their own fees and contains language which better defines the powers of each board. It contains provisions for addition of a "lay" member to each board. The "lay" member of the Board of Registration for the Healing Arts is nonvoting. (Signed)

SB 58 entitles a person whose health insurance has been terminated to receive a converted policy without providing evidence of insurability.

SB 63 allows Medicaid to pay for personal care services that enable an ill person to remain at home rather than be institutionalized. (Signed)

SB 73 says an applicant or recipient of benefits provided by Division of Family Services may appeal to the division director decisions made by county welfare office which affect his eligibility or amount of benefit.

SB 84 establishes mechanism of escrow accounts, reserve funds and other safeguards to protect investments of citizens.

SCS SBs 21/113 corrects ommission in pre-marital blood testing bill passed in 1980. Also, marriage license would be voided after 30 days if not used.

SB 185 requires health service corporations to reimburse any ambulatory surgical facility that has obtained a certificate of need. (Signed)

SB 347 lists minimum benefit standards for Medicare supplement policies and provides standardization of terms and coverage. (Signed)

HB 258 allows political subdivisions to sell revenue bonds to provide rental office space for physicians/dentists on staff. (Signed)

HB 336 requires the Department of Mental Health residential facilities/day programs to notify any person responsible for the cost of voluntary patient's care upon patient's admittance.

HB 399 requires a person responsible for clients of Department of Mental Health to pay full cost of care if the client is not domiciled in Missouri. Department could pay for emergency situations pending verification of domiciliary state.

HB 437 allows local governments to levy a tax, on voter approval, to establish "911" emergency number.

HB 894 makes state eligible to receive Medicaid funds for inpatient psychiatric services to persons under 21 in accredited psychiatric facilities and for mentally retarded persons under age 18 in state intermediate facilities. Tightens control on transfer of resources for less than fair value in determining eligibility for Medicaid. (Signed)

HB 901 changes many of the benefits and requirements for Medicaid recipients and providers. Among the changes is a "second opinion" requirement for nonemergency surgery. (Signed)

Council considers resolutions, makes appointments

During the June 16 meeting in Columbia, the MSMA Council took action on resolutions referred to it by the 1981 House of Delegates. Members of the Council voted to refer Resolution 11 and Resolution 19, regarding health care delivery to the poor, to the Commission on Medical Economics, Commission on Public Affairs, and the Commission on Interspecialty Medicine for further study.

The Council also acted upon the following resolutions:

(6) Usual, Customary and Reasonable — referred to the Commission on Medical Economics, Third Party Medicine and Governmental Relations.

(32) Location of Annual Session — confirmed the dates of March 17-20, 1983 at Tan-Tar-A, Lake of the Ozarks.

(36) Hospital Staffed Satellites — referred to the Commission on Interspecialty Medicine for study.

Also at the meeting, appointments of the following councilor advisors to Commissions were made:

Continuing Medical Education — Marvin A. Singleton, M.D.
Interspecialty Medicine — T. J. Cooper, M.D.
Medical Economics — Richard C. Hedges, M.D.
Medical-Legal Affairs — Donald McIntosh, M.D.
Public Affairs — Robert R. MacDonald, M.D.

In his President's Report, Dr. Eugene T. Hansbrough made several appointments: Dr. Richard V. Bradley to the MSMA Liaison Committee with the Board of Healing Arts; Dr. Jean A. Chapman, chairman of the Commission on Public Affairs.

Dr. Hansbrough also named the following physicians to the Committee on Legislative Affairs: Drs. John I. Matthews, chairman; E. T. Hansbrough; I. H. Clark; James M. Stokes; Carol F. Williams; Walter German; T. J. Cooper and Larry G. Piepergerdes.

In other action, the Council:

- recommended that Raymond A. Ritter, M.D., Cape Girardeau, be nominated for an AMA Service Award to be presented at the next AMA Annual Session.
- referred a Clay County Medical Association resolution regarding hospital expansion into the practice of medicine, to the Commission on Interspecialty Medicine.
- invited Dr. Mohammad Ahkter, director of the Misouri Division of Health, to attend all future Council meetings, to encourage increased cooperation between the Division of Health and, the MSMA.
- approved sending five representatives to the September AMPAC workshop in Washington.
- referred the AMA direct membership proposal to the Budget and Finance Committee for study.
- referred the AMA proposal concerning dues increase to the Constitution and Bylaws Committee.
- appointed the Budget and Finance Committee consisting of Drs. Carol F. Williams, chairman; E. T. Hansbrough; John I. Matthews; I. H. Clark; James M. Stokes; Ben A. Moranville and Jack Wiles.
- approved the Avis car rental discount proposal as a membership benefit.
- referred the matter of endorsement of trauma centers to the Commission on Interspecialty Medicine for study and report back to the Council.
- voted to support child auto restraint legislation.

Federal court voids abortion pathology law

The Missouri law requiring pathology reports following all abortions was voided by a recent ruling of a federal appeals court. The court stated that the law posed an undue burden since there is no compelling state interest to justify it, at least in first trimester abortions.

The ruling also voided the requirement that a second physician be present during a dilation and evacuation procedure, stating that the requirement was overbroad.

The appeals court also reversed a lower courts finding that the Missouri statute imposes strict criminal liability on doctors who abort viable fetuses.

The Missouri law requiring a 48 hour waiting period for abortions was ruled unconstitutional by the court. In the ruling, the court also stated that the state could not withhold abortions from minors without parental consent but said it could force second trimester abortions to be performed in a hospital where parental consent is required for admission.

Practicing nurses must have Missouri license

The Missouri State Board of Nursing is receiving an increasing number of applications for endorsement in Missouri from nurses licensed in another state but already practicing nursing in Missouri hospitals.

Licensure for professional and practical nurses in Missouri is mandatory. The practice of nursing without a license is a class A misdemeanor. To date, the Board has not proceeded with prosecution for the violation of this law.

In Missouri, a registered professional or practical nurse must have one of the following to practice nursing: a valid Missouri license, a temporary work permit, a "Permission for Out-of State Graduates to Work Pending Results of First Examination" Permit, or verfication from the State Board of Nursing that the nursing graduate is scheduled to write the State Board in Missouri.

An employer may verify a graduate's eligibility to work by calling the State Board of Nursing (314/751-2334).

AMA meeting focuses on reorganization

At the American Medical Association annual meeting, June 7-11, the discussion focused on AMA functions, activities and general reorganization.

A report of the AMA Board of Trustees calling for a reorganization of the AMA structure and staff and a $35 annual dues increase received the greatest attention. The AMA House of Delegates approved most of the report and called for representation of the medical profession to be the number one priority for the Association in the coming years.

The House changed the Bylaws to establish a direct AMA membership option. The MSMA opposed this proposal and the MSMA Council has instructed our AMA delegates to support a recommendation urging that direct membership be implemented only in those states hat invite the AMA to do so.

The House also adopted a comprehensive report peraining to "pro competition" national health insurance roposals now under consideration by the Congress. 'he House agreed that the advocates of competition ssume that patients are preoccupied with price lthough that assumption has not been proven to be so. .ccessibility, reliability and quality are just as important — maybe more so — than price, affirmed the House.

In other actions, the House voted to:

- reaffirm its position opposing PSRO and asking or its repeal.
- refer the subject of satellite clinics to the Board or further study.
- adopt the report stating that applications of odiatrists for hospital privileges should be left up to cal hospitals.
- support the elimination of federal price supports r tobacco.

Car rental discounts vailable to MSMA members

An Avis car rental discount program is now available t Missouri State Medical Association members.

Effective Aug. 1, 1981, MSMA members are eligible f the following discounts on car rentals:

1. New commercial rates with 100 free miles a day plus a 5% discount when returned to the same city.
2. A 35% discount on normal time and mileage rates f rentals not eligible for the new commercial rate.

These rates and discounts apply to both personal and business travel. However, the discounts do not apply to presold special rates.

To receive your discount, you must use the Missouri State Medical Association discount number A/A877100 and be sure to bring it to the attention of the rental agent.

If you have any questions or would like additional information, please contact Avis/MSMA, 502 Earth City Plaza, Suite 227, St. Louis, Mo. 63045 (314) 739-6646.

Family practice program allocations made

The allocation of funds for the family practice residency programs for fiscal year 1981 has been announced by the Missouri Division of Health.

Of the $200,000 allocated, approximately 75% was spent on the development of new programs and 25% for the enhancement of existing programs.

The distribution of funds for new programs is:

Independence Sanitarium and Hospital	$18,000
Phelps County Memorial Hospital, Rolla	19,000
Truman Medical Center-East, Kansas City	51,000
University of Missouri-Columbia, Fayette	51,000
St. John's Mercy Medical Center, St. Louis	5,000
Kirksville Osteopathic Hospital	4,000
Administration	2,000
	$150,000

The following existing programs were funded:

Kirksville Osteopathic Hospital	18,000
Charles E. Still Osteopathic Hospital, Jefferson City	32,000
	50,000

MSMA opposes FMG relicensure requirements

The Missouri State Medical Association has notified the State Board of Registration for the Healing Arts that the MSMA is adamantly opposed to the Board's recent requirements for relicensure of foreign medical graduates.

In June, the State Board notified all FMGs in Missouri that either a copy of their original medical diploma, an official translation if the diploma is not in English or a photocopy of the ECFMG certificate must accompany their application for relicensure. Renewal licenses will not be issued until this information has been received, which gives the FMGs approximately 30 days to comply with the order.

The MSMA notified the Board that although it recognizes there is need for adequate documentation from the FMGs, the MSMA does not feel that any FMG previously licensed in the state of Missouri should be denied relicensure due to a lack of documentation at this time.

These license requirements resulted from a recent court ruling which ordered the State Board to issue licenses to foreign medical graduates with the degree granted by their particular medical school. If the medical degree does not reasonably translate to M.D., the FMG could no longer use the designation M.D. This ruling has been appealed by the State Board.

Items of interest to Missouri Physicians

Dr. Thoma elected to AMA Council

George E. Thoma, M.D., St. Louis, was elected to the American Medical Association's Council on Medical Education during the recent AMA meeting in Chicago.

As a member of the Council, Dr. Thoma will help to monitor the curriculum and philosophy of education in medical schools across the country. He now serves as vice president of the St. Louis University Medical Center.

Also at the meeting, Hubert A. Ritter, M.D., St. Louis, was elected to the executive committee of the AMA Board of Trustees.

MSMA sends mailing urging AMA membership

In July, all members of the MSMA who are not also members of the American Medical Association received a letter urging them to join the national organization. The mailing included a letter from Dr. Hansbrough, a brochure on organized medicine and a statement for AMA dues only.

Of the current MSMA membership of 5,976 physicians, 4,192 or 70% of the physicians also belong to the AMA.

MSMA to present Community Service Award

The MSMA Award for Citizenship and Community Service will be presented for the first time at the 1982 Annual Meeting of the MSMA House of Delegates.

The Award will be presented to a Missouri physician who has made an outstanding contribution to the community for citizenship and public service above and beyond the call of duty as a practicing physician.

Nominations for the award should include a curriculum vitae and a one or two page statement of the nominee's qualifications for the award. All nominations must be received in the MSMA Offices by January 10, 1982 for consideration.

MMPAC needs your support

The current Missouri Medical Political Action Committee membership total of 1444 members includes 1362 regular members and 82 sustaining members.

However, many more MMPAC supporters are needed to insure medical input into political issues affecting medicine. The present membership in MMPAC represents less than 25 percent of the members of the MSMA. To be truly effective, MMPAC needs active participation by all physicians.

At the recent annual meeting, the MMPAC Board of Directors voted to recommend that all MSMA Delegates and component society officers become sustaining members of MMPAC. However, MMPAC membership is open to all MSMA members and their spouses.

If you are not already a member of MMPAC, send in your $100 Sustaining membership or $40 regular membership today. Mail it to MMPAC, P.O. Box 1402, Jefferson City, MO 65102.

MSMA has active placement service

A list of Missouri communities seeking physicians and physicians considering locations is maintained at the MSMA Headquarters for possible assistance in placement activities.

Currently, 85 communities are on the list. These range from the state's metropolitan areas to small, out-state locations.

Nearly all medical specialties are being sought, but family practice is the most predominant.

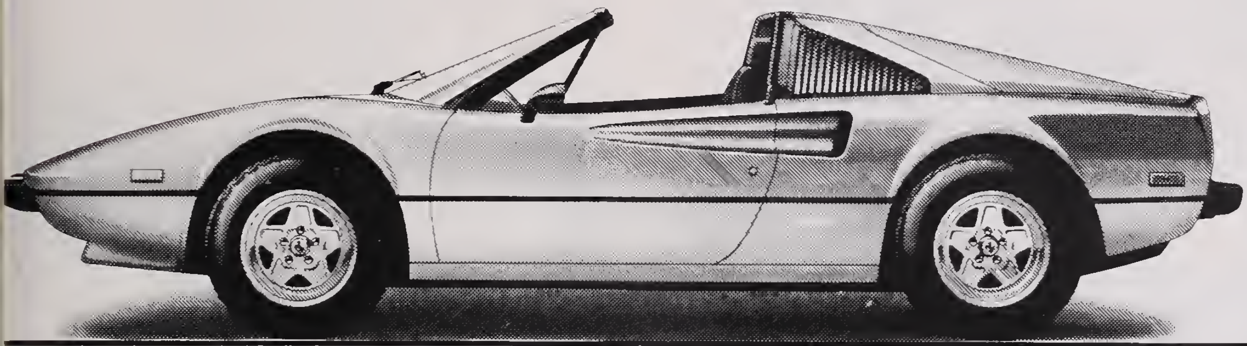
MSMA physicians who are seeking a new location or who are interested in attracting another physician to their area should contact the Placement Department at the MSMA Headquarters, P.O. Box 1028, Jefferson City, MO 65102.

Missouri graduate installed as AMA president

Daniel T. Cloud, M.D., a pediatric surgeon in Phoenix, Arizona, was installed as the president of the American Medical Association in June.

Dr. Cloud graduated from the University of Missouri Columbia with a B.S. in medicine in 1946 before completing his clinical medical studies at the University o Illinois two years later.

MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number
314-636-5744


What can be conceived can be created

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(913) 381-4222

Annual Session 1981

MISSOURI
STATE
MEDICAL
ASSOCIATION

Richard V. Bradley, M.D.
President

Distinguished guest speakers an
MSMA and Auxiliary officers alwa
an important dimension to every
Session. Dr. Bradley, Dr. Hansb
and Mrs. Fakhoury are shown as
addressed the first session of the H
Delegates. Dr. Ritter and Dr. Bo
addressed the House. Represent
Bailey addressed the MSMA and A
members and their guests at t
Auxiliary's annual Public Affa
Breakfast.

Eugene T. Hansbrough, M.D.
Poplar Bluff
President-Elect, MSMA

Mrs. Donald A. Fakhoury
Kansas City
President, MSMA Auxiliary

The Honorable Wendell Ba
Representative, Missouri'
Eighth Congressional Distr

Hubert Ritter, M.D.
St. Louis
President, AMA-ERF

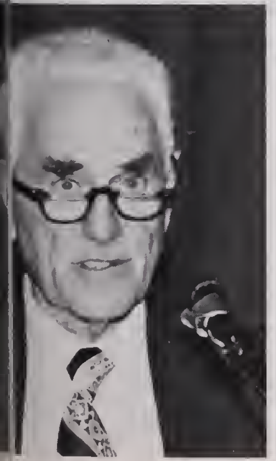
Joseph F. Boyle, M.D.
Los Angeles, Calif.
Chairman, AMA Board of Trustees

Officers and Councilors Elected

Dr. Eugene T. Hansbrough, MSMA President for 1981-1982 *(left)* and Dr. John I. Matthews, newly elected President-Elect, consult during the Annual Session.

New MSMA Council Vice-Chairman, Dr. James M. Stokes, St. Louis *(left)* with Dr. Irving H. Clark, Kansas City, new Council Chairman. A special plaque was presented to Dr. Clark "in sincere appreciation and recognition for your efforts and your dedication in establishing Missouri Medico."

Dr. Mohammad Akhter,
of the Missouri Division
, received a special pre-
of appreciation from the
Medical Association and
Board of Trustees from
ert Ritter.

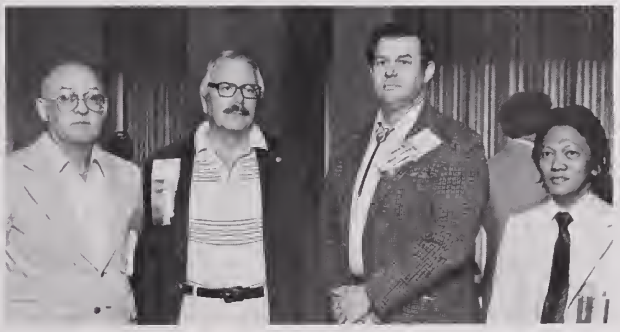


(Left) Eli Ginzberg of New York, N.Y., nationally known economist and the featured speaker at the General Session, discussed "How Much Will Medical Practice Change in the 1980s?"

Officers and councilors selected during the Annual Session are pictured above and below. *(Above, left to right)* Drs. Charles P. McGinty, Vice-President; George M. Bohigian, Vice-President; Donald E. McIntosh, Seventh District Councilor; and Larry G. Piepergerdes, Seventh District Councilor.

(Left to right) Drs. A. J. Campbell, Sixth District Councilor; Larry E. Millikan, Fifth District Councilor; O. Martin Hasek, Ninth District Vice-Councilor; and Robert R. MacDonald, Third District Councilor.

(Left to right) Dr. Richard H. Fallon, Third District Councilor; Dr. Walter A. German, Eighth District Councilor; Mr. Tim Harwood, Student-Vice-Councilor; and Ms. Kimberly Webb, Student Councilor.



(Left to right) Drs. William R. Richardson, Fourth District Councilor; T. J. Cooper, Third District Councilor; Robert V. Tompson, Second District Vice-Councilor; and Patricio Avila, Second District Councilor.

Annual Banquet

in honor of MSMA Past-Presidents

The annual banquet on Saturday of the annual sessio is always an exciting event. The new and retiring MSMA presidents and the past-presidents in attendance are honored and members who have completed 50 years in the practice of medicine recei special recognition. The banquet provides that specia opportunity for members and guests to relax, enjoy fine dinner, visit with old and new friends and danc to the music of a "big band."

Outgoing President Richard V. Bradley *(left)* gives the gavel to 1981-1982 President Eugene T. Hansbrough. Dr. Hansbrough then presented to Dr. Bradley a presidential plaque of appreciation for his outstanding service to the MSMA.

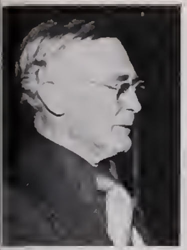
Eleven past-presidents attended and were recognized at the 1981 banquet. *(Front row, left to right)* Drs. Max S. Frank Louis; Harold E. Peterson, St. Joseph; Guy N. Magness, St. Louis; Robert Mueller, St. Louis; Howard J. McAlhany, Spri and Paul R. Whitener, Chesterfield. *(Second row)* Andrew McCanse, Kansas City; John N. Martin, St. Joseph; Walter T. G Louis; Byron M. Stuart, Boonville; and E. A. Stricker, St. James.

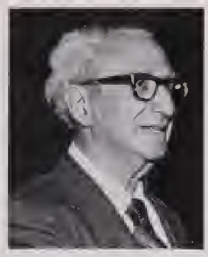
(Left to right)

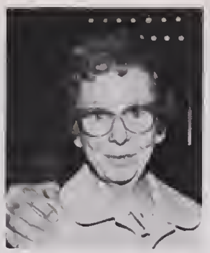
(Above) Friends and associates of Dr. Hansbrough i Bluff included Dr. Kirby Turner; Mr. and Mrs. Christian; Mrs. George H. Ladyman and Dr. Ladyma District Councilor.

(Above, left) Mrs. E. A. Stricker, Mrs. John I. Ma President-Elect Matthews, Paul Stricker and Dr. E. A er, a past-president.

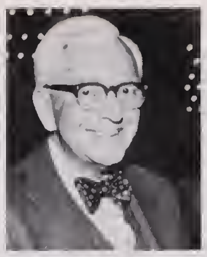
(Left) Seventh District Councilor Larry G. Pieper Allen D. Smith, executive secretary, Jackson County Society; Mrs. Ray McIntyre and Mr. McIntyre, forme tive secretary for the MSMA.

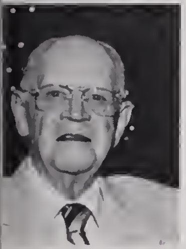

Roger H. Allbee, M.D., Crystal City


Daniel Bisno, M.D., St. Louis

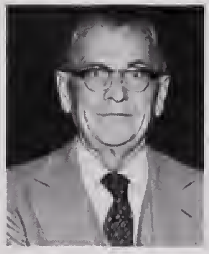

Helen L. Bruce, M.D., St. Louis

Peter G. Danis, M.D., St. Louis


Charles R. Doyle, M.D., St. Louis


oward A. Dunaway, M.D., Sikeston

Robert H. Fitzgerald, M.D., Overland Park, Kan.


Charles L. Garcia, M.D., Mexico

Walter T. Gunn, M.D., St. Louis

Otey S. Jones, M.D., St. Louis

Marianne Kuttner, M.D., St. Louis

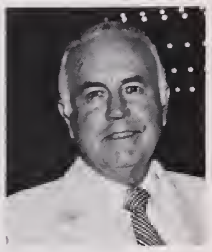
MSMA Members Receive 50-Year Pins

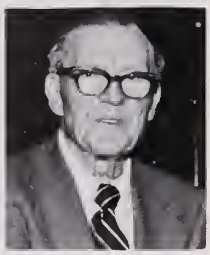
Members of the Missouri State Medical Association who have completed 50 years in the practice of medicine are honored at the Presidents' Banquet each year.

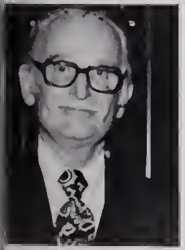
Twenty-five members who attained this distinguished accomplishment in 1981 are pictured here at the time they received their 50-Year Pins and congratulations from President Richard V. Bradley on behalf of the MSMA.

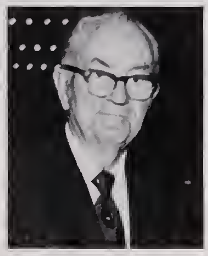
Members who received 50-Year Pins but could not attend the Banquet are Drs. Harvey E. Altheide, Clifford H. Bockelman, Omer E. Hagebush, Max Starkloff and Donald L. Twedell of St. Louis; Gordon P. Barnett, Allen L. Spafford, and Leo H. Pollock, Shawnee Mission, Kan.; Vern T. Bickel, Lamar; Harold L. Gainey and Harry B. Levey, Kansas City; Ernest L. Glasscock, Prairie Village, Kan.; Claude S. Grant, St. Joseph; J. H. Keim, Cape Girardeau; Lyle B. Knight, Lee's Summit; F. S. Morest, Austin, Tex.; Milton D. Overholser, Columbia; S. W. Scorse, Neosho; and Howard B. Throgmorton, Sikeston.*

* Deceased — July 3, 1981.


John R. Lawrence, M.D., Arrow Rock


Harry F. O'Brien, M.D., Mexico


Julian A. Ossman, .D., Jefferson City


Harold E. Petersen, M.D., St. Joseph

Douglas A. Ries, M.D., St. Louis

Harold Scheff, M.D., St. Louis

Eugene J. Schwartz, M.D., Springfield

Harry B. Stauffer, M.D., Jefferson City

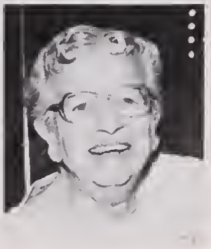
even Tapper, M.D., St. Louis

John A. Virant, M.D., St. Louis

Nicholas S. Vitale, M.D., St. Louis

Henry W. Walters, M.D., St. Louis

Rolla B. Wray, M.D., Nevada


Lois C. Wyatt, M.D., Kirkwood

Newly elected and installed 1981-1982 Auxiliary officers at the installation luncheon included *(seated, left to right)* Mrs. James Haddock, St. Louis, Treasurer; Mrs. William Goodson, Jr., Kansas City, Second Vice-President; Mrs. Donald Fakhoury, Kansas City, Immediate Past-President; Mrs. Jerry Meyer, Concordia, President; Mrs. Sam Gaston, Joplin, President-Elect; Mrs. Thomas Thale, St. Louis, Third District Director; *(Standing* Curtis Bourgeois, Columbia, Recording Secretary; Mrs. Thomas, Columbia, Fifth District Director; Mrs. Clyde Kansas City, Fourth Vice-President; Mrs. Robert Pavlu, ton, Corresponding Secretary; Mrs. Eugene Henschel, St. Auditor; Mrs. Gary Dyer, St. Joseph, First District Dir

The MSMA Auxiliary

The annual convention of the MSMA Auxiliary is held concurrently with the MSMA Annual Session. Special activities include the Auxiliary's annual Public Affairs Breakfast, the MSMA Councilor's Luncheon, the Installation Luncheon and the MSMF/AMA-ERF Benefit Auction.

Mrs. Donald Fakhoury, retiring President *(left)*, receives her past-president's pin from Mrs. Jerry Meyer, President for 1981-1982, after she had presented the gavel and president's pin to the new president.

President Jan Meyer and the other new officers were by Mrs. William R. McPhee *(right)*, a past-president Auxiliary. Mrs. McPhee was elected North Central Region President of the AMA Auxiliary at its convention in Jun

Chase-Park Plaza

NBC sportscaster Jay Randolph of St. Louis *(left)* and Croll, second-year medical student at the University of M Columbia, served as auctioneers for the MSMF/AM annual benefit auction which boosted the three-year to ceeds to $25,000. The auction is co-sponsored annually MSMA. However, it is produced by the Auxiliary.

nnual public affairs breakfast is
nsored by the MSMA Auxiliary
d focuses on state and national
slative matters and government
ocesses that affect the future of
icine. U.S. Rep. Wendell Bailey
n Missouri's Eighth District was
eatured speaker. Dr. Thomas R.
glund of the AMMPAC Board of
rectors was a special guest. All
bers of the MSMA and Auxiliary
re encouraged to participate.

Dr. Thomas R. Berglund of the AMPAC Board of Directors *(right)* presents an award to Dr. John N. Martin, chairman of the MMPAC Board at the Public Affairs Breakfast. The plaque is in honor of MMPAC receiving first place for the largest membership increase over the previous year. MMPAC also received second place for the ratio of members to potential members and second place for all events.

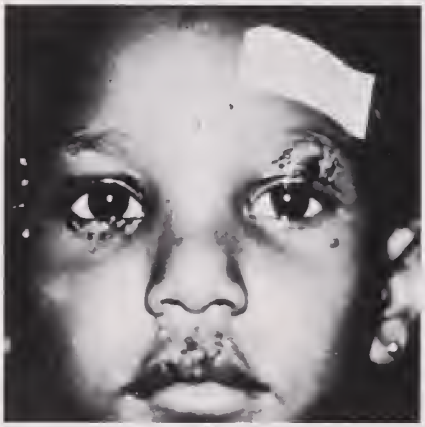
o right) Program participants are Mrs. Keith D. Jones,
iary's Public Affairs-MMPAC Chairman; the Honorable
Bailey, U.S. Representative from Missouri's Eighth
sional District; and MSMA President Richard V. Brad-

(Left to right) Mrs. Richard C. Hedges, Auxiliary Public Affairs-MMPAC Co-Chairman; Dr. Thomas R. Berglund, AMPAC Board of Directors; and Dr. John N. Martin, chairman of the MMPAC Board and a past-president of the MSMA.

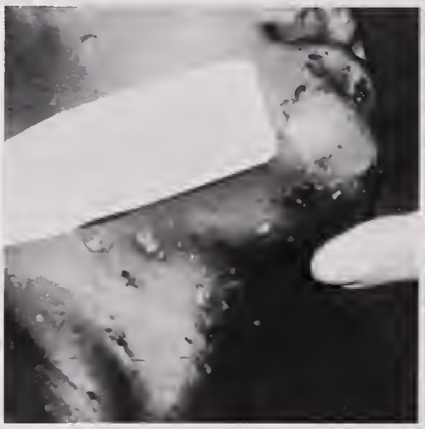
DRAMATIC NEW CLINICAL PROOF*

In the treatment of impetigo–

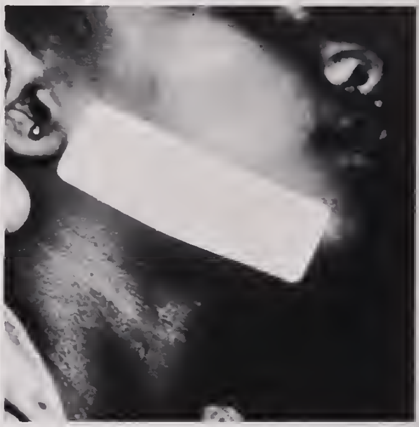
- **100% cure rate with Tegopen®** (cloxacillin sodium)
- **only a 60% cure rate with penicillin V-K**



As seen on admission



After one week of penicillin V-K therapy



Two weeks after initiation of TEGOPEN therapy

Treatment failure was judged to have occurred when lesions increased in size and/or number during the initial week of treatment with penicillin V-K. *No* treatment failures occurred with Tegopen.

*Data on file, Bristol Laboratories.

Brief Summary of Prescribing Information

TEGOPEN®
(cloxacillin sodium)
Capsules and Oral Solution

For complete information, consult Official Package Circular. (12) 9/11/75

INDICATIONS:

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

IMPORTANT NOTE

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

CONTRAINDICATIONS:

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

		Given Tegopen® *(cloxacillin sodium)*	Given *penicillin V-K*
Staphylococcus aureus	(78 patients)	39	39
Returned to clinic at one week		29[†]	38[†]
Treatment failure at one week		0	18 (47.4%)
Staphylococcus aureus and *Streptococcus pyogenes*	(9 patients)	4	5
Returned to clinic at one week		4	5
Treatment failure at one week		0	2 (40%)
No initial bacterial growth	(14 patients)	9	5
All 14 healed, regardless of which antibiotic was administered.			
Beta-hemolytic *Streptococcus*	(1 patient)	0	1
TOTALS:	102 patients	52 patients	50 patients

[†]Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus.*[‡]
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

[‡]The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

TEGOPEN®
(cloxacillin sodium)
–effective therapy for staph infections of the skin and skin structures

---

WARNING:

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

PRECAUTIONS:

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

ADVERSE REACTIONS:

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

USUAL DOSAGE:

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

N.B. INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

SUPPLIED:

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL®
Bristol Laboratories
Division of Bristol-Myers Company
Syracuse, New York 13201

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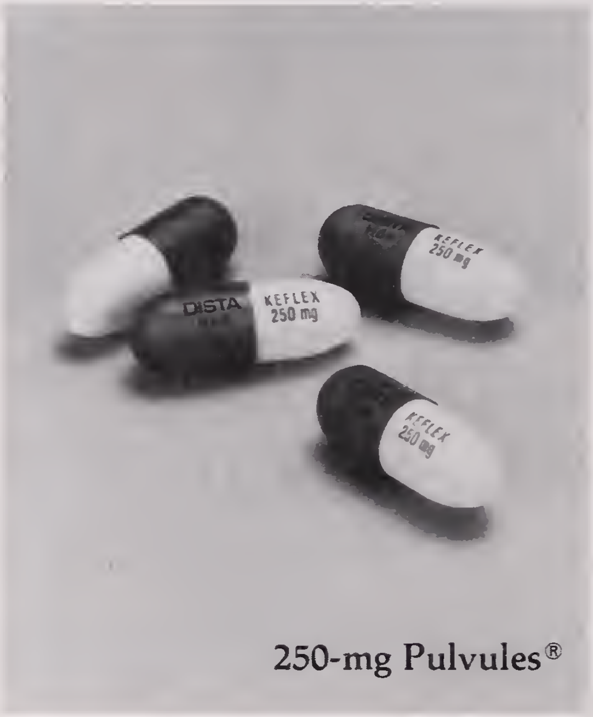
easy to take



250-mg Pulvules®

Oral Suspension
250 mg/5 ml
100 and 200-ml
sizes

125 mg/5 ml
60, 100, and
200-ml sizes

Pediatric Drops
100 mg/ml
10-ml size

Keflex®
cephalexin

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UPJOHN
MOTRIN

For the pain of osteoarthritis
the proven power of

Motrin®
ibuprofen, Upjohn
600 mg Tablets
One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

Upjohn

1 The Upjohn Company

The Upjohn Company • Kalamazoo, Michigan 49001 USA

Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other non-steroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: **Blurred and/or diminished vision**, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.
Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels.
Coumarin: bleeding has been reported in patients taking *Motrin* and coumarin.
Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship
Gastrointestinal: Nausea,[*] epigastric pain,[*] heartburn,[*] diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,[*] headache, nervousness; **Dermatologic:** Rash[*] (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIDNS).

Incidence Less Than 1%—Probable Causal Relationship[**]
Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown[**]
Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis.

[*] Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

[**] Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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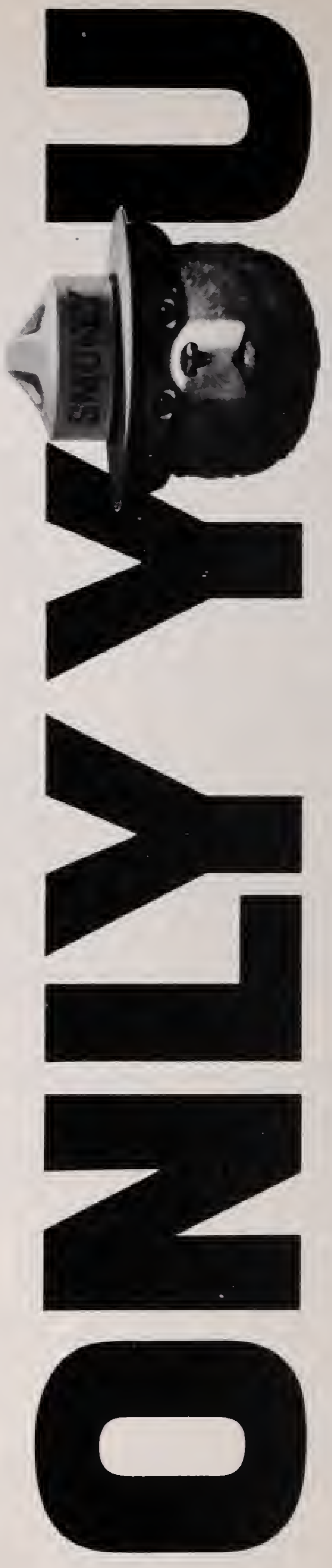
Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-9042-4 July 1981



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Remarks of Richard V. Bradley, M.D., President

Mr. Speaker, Dr. Boyle, Delegates, Fellow Iembers, Auxilians and Guests:

The work of the Missouri State Medical Assoiation during the past year has been guided by rticle 2 of its constitution, "The purpose of this ssociation is the promotion of the science and art f medicine, the protection of public health, the etterment of the medical profession, the orgaization of its membership for negotiation and ollective bargaining purposes, and, by uniting vith similar organizations in other states and teritories of the United States, to form the Amercan Medical Association."

Your officers, your staff, your Council, commision and committee members sincerely hope that ou have taken the advantage of monitoring their ctivities and proceedings, most of which have een distributed to you by way of MISSOURI IEDICINE. While your organization never obects to comments in the affirmative, it most cerainly prefers to have comments even in the negaive as compared to the noisy silence of apathy.

During 1980, the Missouri State Medical Assoiation has grown in numbers. The four compoent medical student societies have contributed o our increase. Equally important is the fact that he total of practicing physicians has increased. ou can look forward to continued increase in membership through recruitment of physicians and postgraduate training programs. This is an area in which each of you can assist through open demonstration of your beliefs in your local, state and national societies as well as the associate of levels of the specialty organizations.

Missouri membership in MMPAC and AMPAC continues to grow along with an increase in the ranks of the 99+ button owners whose sustaining memberships may well have had a part to play in the electoral changes of the 11th month of 1980. With respect and apologies of the very liberal, it is pleasing to hear even the youthful chirps of an administration that wants to return responsibility toward the individual and to return credibility to the private sector. We may have to remove grasping hands from that cornucopia of the federal handout. In fact, those handouts come out of our own paychecks. The PAC system makes sense. It has proven its effectiveness. It merits your continued personal participation and economic support.

Missouri medicine has been a member of a unique coalition called the VOLUNTARY EFFORT for the past 3+ years. It is a nationally based network of all segments of the medical community to demonstrate the ability of medicine in the private sector to deliver cost effective medical care by exercise of voluntary rather than regulatory principles of professional restraint in sound distribution principles. The hospital component of this effort has done their portion well. It is now up to patients and to physicians alike to accept their share of the responsibility of making and keeping the utilization of medical care at an appropriate but cost-effective level.

In 1973 and 1974, your local and state medical association pledged themselves to develop a professional liability insurance mechanism which could not be manipulated at the pleasure of certain for-profit commercial insurance companies. The reason for that pledge was real. The manipulations of certain commercial professional liability carriers in blaming their stock market losses falsely upon Medical Malpractice claims was in poor taste, bordered on malice, and required a firm counter answer on the part of Medicine. MOMEDICO is the successful answer which your society has presented to you. It is professional liability insurance controlled by representatives of your state medical society who provide insurance on an occurrence basis at an appropriate cost. Those costs are based on the experience within the state of Missouri. The company is young, but it is vigorous and merits your membership consideration.

Medicine has come of necessity, then called upon to expand an increasing amount of its time and its actual resources in monitoring and interacting with the legislative process. There is essentially no time or opportunity for your representatives to afford themselves the costly error of being unprepared or inattentive to the workings of the general assembly, the state or federal register, or the ulterior and sometimes diverse activities of special interest groups who desire to enter into the delivery of medical care by a route or routes which demonstrate incomplete preparedness to deliver the services promised.

The senior staff of your state organization has done an outstanding job in their respectful, credible and prompt representation of the Missouri State Medical Association aided by the chairman of your Council and a corps of dedicated physician members. Any physician or spouse who has an acquaintance associated with the general assembly or with the city or national political scene can supply them with materials or thoughts beneficial to the quality of patient care and better medicine. Your political representatives will listen to you if you have a *worthwhile product to sell*.

You, as individuals, certainly differ in your concept of the manner in which medicine should interface with the population, the government and the economic arena. The MSMA is made up of some of your thoughts, criticisms, participation and contributions. The MSMA welcomes more of each. Meanwhile, you have a good foundation in the local component societies, an excellent constituent society at the state level, known as the MSMA, and an ongoing opportunity to participate even more nationally in the voice of medicine known as the AMA with its additional contributing representatives of all of the valid specialty societies.

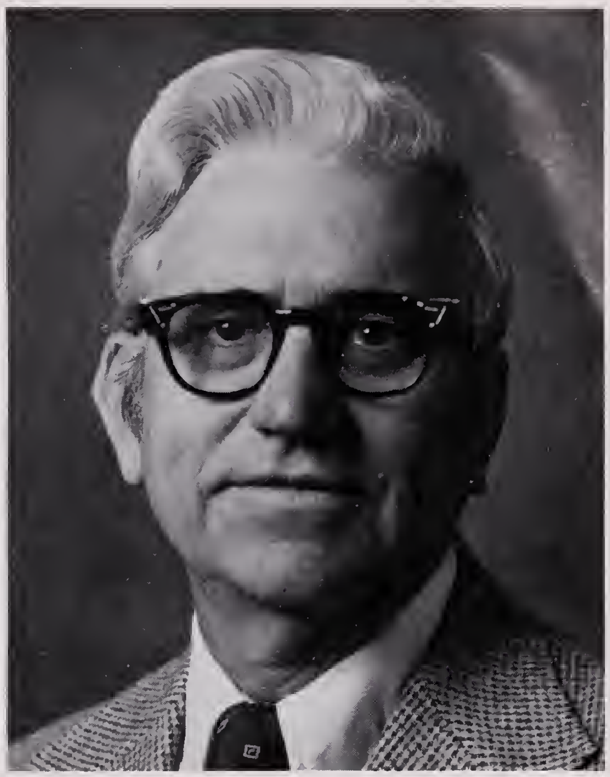
The MSMA is in the progressive arena. It should attend to the formation of a statewide method of controlling all aspects of medical care and delivery for the good of the population. Your speaker is reminded of an organization analogous to the state bar association which received input from the local and sent input to the national level. It is hard to develop a name for this, but it is not hard to see that the presence of such a mechanism would enable a central governing body to more adequately monitor the quality of medical care delivery within our state.

The Missouri State Medical Association has improved its representation. From a demographic point of view, the physician population is continually shifting, in general from the northeast to the southwest. In this sense, it is comparable to the population shift of our entire United States. It would be beneficial for your House of Delegates and your Council to consider a standing committee on representation, both at the delegate and at the councilor level, with some thought being given to the kinetic changes in councilor districts. Such changes in geography of councilor districts would have to be done with the consent of the component societies who, in fact, should originate such changes.

The MSMA should continue to encourage the participation of younger members, rather than to consider them our future. Your speaker feels that our future is now, where younger members are concerned. Key contact activities should continue not only at the delegate and councilor level but at the grassroots level whenever possible, in order to maintain contact with the legislative process.

It has been a privilege and a pleasure to be a continuing part of the organization and to know from within that it is growing in size and stature and in the respect of our fellow Missouri citizens.

Remarks of Eugene T. Hansbrough, M.D., President-Elect



Mr. Speaker, Dr. Boyle, Members and Guests:

I would like to reflect upon several areas that I eel are important to our organization. In my pinion, the primary problem this association will ace is infringement upon our practices.

In 1975, there were 365,000 physicians and ,600 physician extenders. In 1990, there will be 35,000 physicians and 41,500 physician extendrs. There will be doctors everywhere.

The result will be physician extenders in areas hat physicians should cover. I can remember when I was a child and we had a school doctor and physician was attached to all the public health nits. Physicians did more things then than we ave done during the past few years to the detriment of the persons being served.

I feel that only physicians are qualified to make iagnoses and prescribe treatment and both hould remain our responsibilities. Any further rogress of physician extenders, many of whom esire to practice medicine independently, vould be a great mistake. The mistake would rimarily affect those people they would serve vithout having received the necessary and proper medical training to function as a physician.

I still believe that in America, people want a ualified physician to diagnose and treat their lnesses and will continue to do so.

The Missouri Legislature's stand on physician extenders has been admirable. I know that my state representative feels that the addition of tiers of extenders will escalate the cost of medical care. Of course, this is contrary to the principle of lower health care costs for which the concept of physician extenders was intended.

There will be an adequate number of physicians to practice medicine without the tiers of physician extenders. I hope we some day reach the point at which things that have been delegated (unwisely in my opinion) will not be repeated.

A second problem that I see down the road is hospital practice of medicine. This is a problem in some areas already because the hospitals have trouble surviving with the increasing rules and regulations.

I'm talking about the clinics staffed under hospital auspices. These clinics do employ many physicians part-time, but this is a prelude to full-time clinics established to treat your patients. Certainly, they do furnish jobs to physicians. However, this kind of practice is different from that to which most of us in this room are accustomed. In my opinion, these clinics represent a backward trend for medicine because physicians, with notable exceptions, do not perform as well as when they are their own boss.

Also, many areas for practice and living simply will not have openings for physicians. By necessity, not every physician will be able to practice and make a living in the area in which he and his wife would prefer to live.

We do need to point out that some students coming out of medical school sometimes feel incapable of breaking the umbilical cord to the parent institution. They might feel that they will not be able to perform in an isolated area.

Having experienced this myself, I can assure you that a physician may have some difficulty at first. Hopefully, the training programs and assistance from others in the area will allow physicians to perform adequately within the limits of their training in any setting they chose.

Another concern I have is the fact that during the last ten years, the net income for physicians has fallen, even though only slightly. This has happened despite the fact that fee increases have been significant during this period, although less than the inflation rate as a whole.

This obviously means that the practice expenses of physicians have risen faster than income — a problem for which I have no solution. This problem needs to be continually studied. Perhaps at some future time, answers can be forthcoming.

We also need to point out, however, that during this time there has been a decrease in time spent by patients waiting for appointment time. This is a very significant and important finding for all physicians. Certainly, there is nothing more damaging to our profession than a patient being unable to get a timely appointment when ill.

I also see the necessity for physicians to take care of their patients after office hours when necessary. Many patients will simply refuse to accept the standard "go to the emergency room and see me next week."

Certainly, physicians cannot be expected to work 24 hours a day, seven days a week. In some instances, however, perhaps we are not assuming as much responsibility for our patients as we should.

There is also some good news upon us, as you know. The Administration has changed at the federal level and is working to eliminate many of the things that we have been griping about for years. In my opinion, we are seeing the end of government extending its hand into the practice of medicine for the time being.

I feel that PSROs will be withdrawn. I believe this is good, although PSROs have brought to our attention some very poor practitioners. I think that we already suspected this in many cases, but PSROs did result in documentation.

I feel that we as physicians must continue to be certain that our brother is practicing good medicine. We must also work for state legislation that will take effective action against those physicians not performing in a manner that is acceptable to our profession.

Certainly, the elimination of these incompetent practitioners from the medical society is not as effective as their losing their license would be. We need these laws to be a little more effective in our state and we will work toward that end.

HSAs will also be leaving. I feel that we had planning before them without such elaborate federal outlay and we will continue to have state planning.

Now, with all the good plans that this Administration has for us, there also will be a few unfavorable actions. We all cheer the Administration when its intention is to eliminate waste. However, we must also anticipate the same to happen in the medical profession.

Some of the cuts will concern more than waste and some will take our dollars away. But we as physicians must be willing to stand up and take our licks along with everybody else to help America survive.

I still believe that America is the greatest country in the world and it will continue to be so if we can turn the economy around. So, ladies and gentlemen, please don't start crying foul as soon as someone starts taking a nickel away from you!

Let's remember that the practice of medicine is a joy and the payment thereof is a bonus. Many of us treated those people without money before federal funding became prevalent. We know they shall be taken care of once again when federal funding is no longer available.

True, those nice collection ratios may decrease, but perhaps you will know personal satisfaction because you, as a physician, have seen to it that all those people have received treatment regardless and irrespective of payment.

In closing, I thank you again for the privilege of being your president for the coming year. Let's all work together to make this a continuing good year for medicine in Missouri.

Report of Mrs. Donald Fakhoury, President of the MSMA Auxiliary

Mr. Speaker, Dr. Bradley, Dr. Boyle, Mem-ers of the House of Delegates, and Guests:

My theme for the year as Auxiliary president as "Go Ahead and Try." When opportunities ome along, I often feel inadequate for the task. owever, I feel that I can by seizing the oppor-nity and giving it my best effort. That I have ied to do this year.

The effort has had its disappointments as well its successes. One major area of disappoint-ient has been in the line of membership. Our iembership must come from spouses of physi-ans. There is no other source. I have looked ick over our membership, and the highest fig-re I could find was in 1969 when there were 881 auxiliary members. Since then, there has een a slow but steady decrease each year. In the st five years, our membership has dropped from 728 in 1976 to 1,390 in 1981. We lost 178 mem-ers just this past year, partly because of a $4.00 tional dues raise and a $4.00 state dues raise ing into effect the same year.

Our state and national dues are currently $19 a ar with another AMA Auxiliary raise of $4.00 ing into effect in 1982. This is not that large a m. With the county dues in addition, it nounts to $25 to $35 per member.

I am asking your help in turning this downward trend around. Please encourage your wife or husband to join us. She or he does not have to be involved in our activities if time does not permit, but we do need the support of the membership dues as does the AMA Auxiliary.

On the positive side, I feel there have been many accomplishments. The state officers and chairmen have all worked hard in their areas of concern. The counties have carried out many and varied projects benefitting their communities in the areas of health education or health projects.

One emphasis of the year was to promote auxiliary and physician membership in MMPAC and AMPAC. To help in this emphasis, Mrs. R. B. Moore from Florida, the AMA Auxiliary representative on the AMPAC Board, and Mr. Russ Brady from the AMPAC office in Chicago, were speakers at our Fall Conference. I hope we made some contribution to the awards Missouri is receiving this year from AMPAC.

The bylaws had not been updated in a few years. The revision committee felt that a change in the entire format would make the bylaws more uniform and understandable. Therefore, they were completely rewritten with much change in wording but little change in intent. The proposed bylaws were presented for discussion and input at the Fall Conference, were printed in their entirety in the convention issue of the *Missouri Auxiligram*, will be discussed at an open hearing after the Pre-Convention Board meeting this afternoon, and will be voted on during the convention business meeting.

Since the last auxiliary Day at the State Legislature was in 1972, another day was held on March 24, 1981. About 75 doctors' wives observed the Senate and House of Representatives in session and entertained 25 of their representatives for lunch at the Governor Hotel. The Speaker of the House and the President Pro Tem of the Senate spoke briefly. In the afternoon, there was a tour of the Governor's Mansion.

Miss Jean Duensing, the Auxiliary liaison in the MSMA office, was of great service to the Auxiliary this year, especially with help in publishing the *Missouri Auxiligram*. At her suggestion, the entire membership roster was printed in the first issue of the year. This was beneficial for every member to have the name and address of every other member by county as well as to have the list of state officers and chairmen. With Miss Duensing's assistance, the last issue of the *Missouri Auxiligram* which included the proposed bylaws was prepared.

I was privileged to visit 13 county auxiliaries. Getting to see the county members work firsthand is a great learning experience as well as being so enjoyable. The MSMA and its Council have been most supportive during the year. Jan Meyer, President-elect, and I attended the meetings of the Council and gave the Auxiliary report each time.

As always, the MSMA Auxiliary has supported the AMA-Education Research Foundation, which is the only AMA Auxiliary fund-raising effort. I am happy to report that our contribution since this time last year is $15,715.56. Our efforts on behalf of the Missouri State Medical Foundation is up to $5,405.60. We hope both these funds will be increased greatly tonight.

I would like to invite you to attend the Third Annual AMA-ERF/MSMF Benefit Auction tonight at 6:30 in the Chase Club. There will be auxiliary hostesses in western attire ready to serve you drinks and hors d'oeuvres. Gregg Croll, a professional auctioneer and second-year medical student in Columbia, and Jay Randolph, sports announcer in St. Louis, will keep the bidding moving along. Please join us for an evening of fun which will also benefit medical education.

My thanks go to each auxiliary member, officer and chairman who has joined me in "giving it a try" this year. Although our efforts were not an unqualified success, we did agree to do our best. In the process, we have grown and felt some satisfaction in the results.

Fourth Benefit Auction to Be Held in 1982!

The MSMA Auxiliary is proud to announce that plans are in progress for the Fourth MSMF/AMA-ERF Benefit Auction to be held at the 1982 Annual Session in Kansas City. Co-sponsored by the MSMA and Auxiliary, the Third Benefit Auction in St. Louis this year produced $8,120, boosting the three-year total to $25,050 for the two important student assistance funds. All members are urged to begin thinking in terms of their auction donations for 1981!

123rd Annual Session

MISSOURI STATE MEDICAL ASSOCIATION

House of Delegates

Chase Park Plaza Hotel — St. Louis

April 9-12, 1981

This report of the 1981 MSMA Annual Session held at the Chase-Park Plaza Hotel in St. Louis is designed to provide each member with a concise but complete summary of the meeting and the actions taken by the House of Delegates. The minutes of this session are available to members of the MSMA at the Headquarters Office in Jefferson City.

IRST SESSION

The First Session of the House was called to order at 10:30 M on April 9, 1981 in the Khorassan Room with Jay Meyer, .D., speaker, presiding. The following officers, councilors nd delegates were present during the 123rd Annual Session.

OFFICERS

resident	Richard V. Bradley, St. Louis
resident-Elect	E. T. Hansbrough, Poplar Bluff
ice-President	Francis X. Lieb, St. Louis
ice-President	R. V. Tompson, Moberly
ecretary	B. A. Moranville, Columbia
reasurer	Carol F. Williams, St. Louis
peaker of the House	Jay Meyer, St. Louis
ice-Speaker of the House	Barbara Buchanan, Kansas City
nmediate Past-President	Andrew McCanse, Kansas City

COUNCILORS

t District	Richard C. Hedges, North Kansas City
d District	Patricio Avila, Hannibal
d District	Thomas J. Cooper, St. Louis
d District	Richard H. Fallon, St. Louis
d District	James M. Stokes, Chesterfield
d District	J. Otto Lottes, St. Louis
d District	Theodore L. Paletta, St. Louis
d District	Frederick D. Peterson, St. Louis
h District	Paul H. Rother, St. Charles
h District	John I. Matthews, Jefferson City
h District	H. Peter Ekern, Mexico
h District	R. John Torontow, Nevada
h District	Irving H. Clark, Grandview
h District	Donald McIntosh, Kansas City
h District	Ronald A. Youmans, Kansas City
h District	Walter A. German, Springfield
h District	Marvin A. Singleton, Joplin
h District	Jack Wiles, West Plains
th District	George H. Ladyman, Poplar Bluff
udent Councilor	Dianne Budd, St Louis

VICE-COUNCILORS

1st District	Gary A. Dyer, St. Joseph
4th District	William R. Richardson, Union
5th District	Larry E. Millikan, Columbia
6th District	A. J. Campbell, Sedalia
7th District	Larry G. Piepergerdes, Kansas City
9th District	O. Martin Hasek, Mountain Grove
10th District	Melvin Kasten, Cape Girardeau
Student Vice Councilor	Kim Webb, Columbia

DELEGATES

First District

Buchanan	Gary A. Dyer, St. Joseph
Buchanan	Wallace McDonald, St. Joseph
Buchanan	Robert M. Spurgat, St. Joseph
Clay	Richard P. Bowles, Liberty
Clay	Donald Fakhoury, Kansas City
Clay	John C. Hagan, III, N. Kansas City
Clay	Nicola Y. Katf, Kansas City
Clay	Truman B. Schertz, N. Kansas City
Clay	William D. Soper, Liberty
Grand River	John R. Dixon, Brookfield
Grand River	George Mandler, Chillicothe
Northwest	Edward Bare, Tarkio
Northwest	Patrick Harr, Maryville
Northwest	Frank Matteson, Grant City

Second District

Chariton-Macon-Monroe-Randolph	James E. Campbell, Macon
Chariton-Macon-Monroe-Randolph	William D. Chute, Moberly
Chariton-Macon-Monroe-Randolph	Robert V. Tompson, Moberly
Marion-Ralls-Shelby	M. J. Buckstein, Hannibal
Marion-Ralls-Shelby	Carl Kruse, Palmyra
Marion-Ralls-Shelby	Ed Plowman, Hannibal

Third District

St. Louis Metropolitan

St. Louis	Morris Alex, St. Louis
St. Louis	Luis B. Anglo, St. Louis

St. Louis	Vernon H. Balster, St. Louis
St. Louis	M. Roman Banton, St. Louis
St. Louis	William C. Banton, II, St. Louis
St. Louis	William Berman, St. Louis
St. Louis	Ralph L. Biddy, St. Louis
St. Louis	Arnold S. Block, St. Louis
St. Louis	George M. Bohigian, St. Louis
St. Louis	C. Read Boles, St. Louis
St. Louis	Robert L. Bolton, St. Louis
St. Louis	Harry Brady, St. Louis
St. Louis	Seymour Brown, St. Louis
St. Louis	Donald E. Callahan, St. Louis
St. Louis	Rudolph E. Catanzaro, St. Louis
St. Louis	Harry O. Cole, St. Louis
St. Louis	Nicholas J. Colosi, St. Louis
St. Louis	Marshall B. Conrad, St. Louis
St. Louis	Cyril Costello, St. Louis
St. Louis	Joseph A. Costrino, St. Louis
St. Louis	Reno R. Cova, St. Louis
St. Louis	Robert B. Deitchman, St. Louis
St. Louis	Burl M. Dillard, St. Louis
St. Louis	Virgilio Dumadag, St. Louis
St. Louis	James E. Edwards, St. Louis
St. Louis	Klark Exarhou, St. Louis
St. Louis	Daniel C. Fabito, St. Louis
St. Louis	Linda A. Fisher, St. Louis
St. Louis	Mariano Floro, St. Louis
St. Louis	Daniel Fraser, St. Louis
St. Louis	Raymond O. Frederick, St. Louis
St. Louis	Paul L. Friedman, St. Louis
St. Louis	Joseph Gagliardo, St. Louis
St. Louis	John A. Gantz, St. Louis
St. Louis	August W. Geise, St. Louis
St. Louis	Lance Gerowin, St. Louis
St. Louis	Clement Grebel, St. Louis
St. Louis	David A. Hardy, St. Louis
St. Louis	John Hartwig, St. Louis
St. Louis	George L. Hawkins, St. Louis
St. Louis	Marijan Herjanic, St. Louis
St. Louis	Albert E. Hesker, St. Louis
St. Louis	Vencel W. Hollo, St. Louis
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St. Louis	William H. Huffaker, St. Louis
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St. Louis	Otey S.Jones, St. Louis
St. Louis	Mohammed A. Kabir, St. Louis
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St. Louis	Joseph J. Lauber, St. Louis
St. Louis	Jerome L. L'Ecuyer, St. Louis
St. Louis	Francis X. Lieb, St. Louis
St. Louis	Jay L. Liss, St. Louis
St. Louis	T. Cameron MacCaughelty, St. Louis
St. Louis	Robert R. MacDonald, Jr., St. Louis
St. Louis	William Macdonald, St. Louis
St. Louis	Otakar Machek, St. Louis
St. Louis	Maria E. Manion, St. Louis
St. Louis	David S. Martin, St. Louis
St. Louis	Homer B. Matthews, St. Louis
St. Louis	Melvin E. Meyer, St. Louis
St. Louis	Emil F. Miskovsky, St. Louis
St. Louis	Gerald W. Moritz, St. Louis
St. Louis	Robert J. Mueller, St. Louis
St. Louis	Wilbur Mullarky, St. Louis
St. Louis	David L. Ohlms, St. Louis
St. Louis	Gary H. Omell, St. Louis
St. Louis	Lawrence W. O'Neal, St. Louis
St. Louis	Frank Ostapowicz, St. Louis
St. Louis	William J. Ott, St. Louis
St. Louis	Francis X. Paletta, St. Louis
St. Louis	Leopoldo P. Pardo, St. Louis
St. Louis	Meredith J. Payne, St. Louis
St. Louis	Romeo J. Perez, St. Louis
St. Louis	Richard T. Quick, St. Louis
St. Louis	Robert Rainey, St. Louis
St. Louis	Robert Ramsey, St. Louis
St. Louis	Michael Richmond, St. Louis
St. Louis	Salvatore N. Riggio, St. Louis
St. Louis	Edward M. Ring, St. Louis
St. Louis	Hubert A. Ritter, St. Louis
St. Louis	John P. Roberts, St. Louis
St. Louis	George E. Roulhac, St. Louis
St. Louis	Jo-Ellyn M. Ryall, St. Louis
St. Louis	Mickey L. Salmon, St. Louis
St. Louis	Antonio B. Santillano, St. Louis
St. Louis	Lourdes Santos-Pardo, St. Louis
St. Louis	Charles R. Schranck, St. Louis
St. Louis	Melvin Schwartz, St. Louis
St. Louis	John S. Sciortino, St. Louis
St. Louis	Donald G. Sessions, St. Louis
St. Louis	Bharat K. Shah, St. Louis
St. Louis	Edward J. Shaw, St. Louis
St. Louis	A. J. Signorelli, St. Louis
St. Louis	David L. Simon, St. Louis
St. Louis	G. C. Singhal, St. Louis
St. Louis	Kenneth R. Smith, Jr., St. Louis
St. Louis	Samuel D. Soule, St. Louis
St. Louis	Robert J. Stanley, St. Louis
St. Louis	Bruce Stoliar, St. Louis
St. Louis	William Stoneman, III, St. Louis
St. Louis	George Thoma, St. Louis
St. Louis	Donald L. Thurston, St. Louis
St. Louis	Dolores R. Tucker, St. Louis
St. Louis	Timothy T. Turner, St. Louis
St. Louis	Frank J. Valach, St. Louis
St. Louis	Ernest T. Velasco, St. Louis
St. Louis	Benito Veluz, St. Louis
St. Louis	Nicholas S. Vitale, St. Louis
St. Louis	Harvey Walker, Jr., St. Louis
St. Louis	Miles C.Whitener, St. Louis
St. Louis	James M. Whittico, St. Louis
St. Louis	David L. Wilkinson, St. Louis
St. Louis	Carol F. Williams, St. Louis
St. Louis	Ray J. Wolff, St. Louis
St. Louis	George Zografakis, St. Louis

Fourth District

Franklin-Gasconade-Warren	A. Carli, Washington
Franklin-Gasconade-Warren	Sam Farrell, Washington
Franklin-Gasconade-Warren	William Richardson, Union
St. Charles-Lincoln	Ferdinand DelPizzo, Jr., St. Charles
St. Charles-Lincoln	Wayne B. Miles, St. Charles

Fifth District

Audrain	Ben Jolly, Mexico
Boone	William C. Allen, Columbia
Boone	Thomas Anderson, Columbia
Boone	William D. Bradshaw, Columbia
Boone	Diane Brukardt, Columbia
Boone	James Denninghoff, Columbia
Boone	William A. Dunagin, Columbia
Boone	George Fuchs, Columbia
Boone	Joseph Montie, Columbia

Boone	James M. Pickens, Columbia
Boone	Gilbert Ross, Columbia
Boone	Garth Russell, Columbia
Boone	Hugh E. Stephenson, Columbia
Boone	Robert Thomas, Columbia
Callaway	Vernon Jackson, Fulton
Cole	Victoria Gunn, Jefferson City
Cole	Thomas Ryan, Jefferson City
Cole	Larry Stauffer, Jefferson City
Cole	James J. Weiss, Jefferson City
Lake of the Ozarks	C. K. Fotopoulos, Osage Beach
Lake of the Ozarks	C. Robert Hall, Versailles
Lake of the Ozarks	Otis Moseley, Osage Beach
Montgomery	S. J. Byland, Wellsville

Sixth District

ohnson	A. L. Folkner, Warrensburg
Lafayette-Ray	Jerry Meyer, Concordia
Lafayette-Ray	Charles T. Riley, Richmond
Pettis	A. J. Campbell, Sedalia
Saline	E. L. McCorkle, Marshall
West Central	Arthur Hansen, Butler
West Central	William Haynie, Butler
West Central	Candice A. Moore, Nevada
West Central	M. Ted Moore, Nevada

Seventh District

ackson	John Aldridge, Kansas City
ackson	Glen A. Barr, Kansas City
ackson	Kenneth A. Buchwach, Kansas City
ackson	Calvin J. Curts, Kansas City
ackson	William E. Dorzab, Kansas City
ackson	Robert C. Fairchild, Kansas City
ackson	John R. Goheen, Kansas City
ackson	Robert L. Goolsbee, Kansas City
ackson	Frederick W. Hahn, Kansas City
ackson	John W. Hardy, Kansas City
ackson	Edwin M. Herman, Kansas City
ackson	James P. Hopkins, Kansas City
ackson	John D. Hunkeler, Kansas City
ackson	Wayne Mason, Kansas City
ackson	William J. Medlicott, Kansas City
ackson	Richard Michelson, Kansas City
ackson	Gerald L. Miller, Jr., Kansas City
ackson	R. K. Noback, Kansas City
ackson	Edward Novak, Kansas City
ackson	Thomas P. Phillips, Kansas City
ackson	Larry G. Piepergerdes, Kansas City
ackson	Robert A. Raich, Kansas City
ackson	Jerold M. Rau, Kansas City
ackson	Dorothy Reister, Shawnee Mission, Kansas
ackson	Wade V. Robinett, Kansas City
ackson	R. A. Slickman, Kansas City
ackson	Wilber B. Spalding, Jr., Kansas City
ackson	Wallace R. Stacey, Kansas City
ackson	E. M. Throne, Kansas City
ackson	G. E. Volk, Kansas City
ackson	Charles B. Wilkinson, Kansas City
ackson	Donald V. Youll, Kansas City
ackson	James E. Young, Kansas City
ackson	David D. Zoller, Kansas City

Eighth District

Dallas-Hickory-Polk-Dade	Olin Griffin, Buffalo
Dallas-Hickory-Polk-Dade	Evelyn Griffin, Buffalo
Dallas-Hickory-Polk-Dade	Ruth Rios, Bolivar
Greene	William F. Clary, Springfield
Greene	Francis M. Corry, Springfield
Greene	Darrell Domann, Springfield
Greene	David Hall, Rogersville
Greene	H. B. Ivy, Springfield
Greene	W. B. Johnson, II, Springfield
Greene	Don Menchetti, Springfield
Greene	DeArmond Moore, Springfield
Greene	Stanley S. Peterson, Springfield
Greene	K. Dewayne Piker, Springfield
Greene	Ramon Shane, Springfield
Greene	Dan Sullivan, Springfield
Greene	Courtney Whitlock, Springfield
Jasper	Edward M. Grim, Joplin
Jasper	Carl C. Pearman, Joplin
Jasper	Robert L. Willcoxon, Joplin
Ozarks	F. R. Esparrago, Monett
Ozarks	Michael Hagen, Aurora
Ozarks	Roy E. Kenney, Neosho
Ozarks	Mary Merideth, Cassville
Webster	T. M. Macdonnell, Marshfield

Ninth District

Mid-Missouri	Hugh Bartlett, Rolla
Mid-Missouri	Larry Marti, Rolla
Mid-Missouri	Seth Paskon, Salem
South Central	M. L. Fowler, West Plains
South Central	O. Martin Hasek, Mountain Grove
South Central	L. C. Mayuga, Houston
South Central	Joe Spears, Cabool

Tenth District

Butler-Wayne-Ripley-Carter	T. E. Ruff, Poplar Bluff
Butler-Wayne-Ripley-Carter	Kirby L. Turner, Poplar Bluff
Cape Girardeau	Jean A. Chapman, Cape Girardeau
Cape Girardeau	Charles H. Cozean, Jr., Cape Girardeau
Cape Girardeau	John K. Holcomb, Cape Girardeau
Cape Girardeau	J. Marshall Jung, Cape Girardeau
Cape Girardeau	Melvin C. Kasten, Cape Girardeau
Jefferson	Maria Candida Albano, Crystal City
Jefferson	Vicente D. Deles, Crystal City
Mineral Area	Norma Farmer, Farmington
Mineral Area	Walter C. Gray, Farmington
Mineral Area	Robert Huckstep, Farmington
SEMO	Edwin J. Masters, Sikeston
SEMO	Gregorio Rodriguez, Charleston
SEMO	John P. Sargent, Sikeston

DELEGATES-AT-LARGE

Jay Meyer, St. Louis, Speaker
Barbara Buchanan, Kansas City, Vice-Speaker

Past-Presidents

Max S. Franklin, St. Louis
Walter T. Gunn, St. Louis
Guy Magness, St. Louis
John N. Martin, St. Joseph
Howard J. McAlhany, Springfield
Robert Mueller, St. Louis
H. E. Peterson, St. Joseph
E. A. Stricker, St. James
Byron M. Stuart, Boonville
Paul R. Whitener, St. Louis

STUDENT DELEGATES

Ms. Kimberley Alexander, Washington University School of Medicine
Mr. Paul M. Busse, St. Louis University School of Medicine
Mr. Marc Downs, University of Missouri-Columbia School of Medicine

Mr. Bruce Gronkiewicz, St. Louis University School of Medicine
Mr. Tim Harwood, University of Missouri-Columbia School of Medicine
Mr. Soloman Kamson, Washington University School of Medicine

Dr. Walter E. Gunn, chairman of the Credentials Committee, reported that eight officers, 19 councilors and 147 delegates were present and constituted a quorum.

The minutes of the 122nd Annual Session in Kansas City and the Fifth Interim Session in Joplin were approved as published in the July, 1980 and February, 1981 issue of Missouri Medicine.

Reference Committees

The Speaker announced the appointment of the following reference committees:

CONSTITUTION AND BYLAWS

James P. Hopkins, Kansas City, *Chairman*
David A. Hardy, St. Louis
Robert M. Spurgat, St. Joseph
George Zografakis, St. Louis
Paul M. Busse, St. Louis University School of Medicine

REPORTS OF OFFICERS

Joseph J. Lauber, St. Louis, *Chairman*
Joe L. Spears, Cabool
John C. Soucy, St. Charles
Victoria Gunn, Jefferson City
Wade V. Robinett, Kansas City

RESOLUTIONS

Francis M. Corry, Springfield, *Chairman*
Daniel M. Fraser, St. Louis
Jerry L. Meyer, Concordia
Kirby Turner, Poplar Bluff
Frederick W. Hahn, Kansas City

The speaker introduced Richard V. Bradley, M.D., president of the MSMA; E. T. Hansbrough, M.D., president-elect of the MSMA; and Mrs. Donald Fakhoury, president of the MSMA Auxiliary, respectively. Each addressed the House and their remarks are published in this issue, beginning on page 355.

The speaker turned the gavel over to Dr. Barbara Buchanan, vice-speaker.

After remarks by Dr. Hubert Ritter, St. Louis, president of the American Medical Association Educational Research Fund, Mrs. Fakhoury presented AMA-ERF checks to Missouri's four medical schools as follows: Washington University, $8,406; University of Missouri-Columbia, $3,488; St. Louis University, $14,019; and the University of Missouri-Kansas City, $2,933.

On behalf of the American Medical Association Board of Trustees and the American Medical Association, Dr. Ritter presented a Certificate of Appreciation to Dr. Mohammed Ahkter, who was appointed director of the Missouri Department of Public Health in November, 1980. The certificate was presented to Dr. Akhter "in recognition of his contribution to American medicine and foreign medical graduates as Chairman of the AMA's Foreign Medical Graduate Affairs, 1978 to 1980."

Dr. Bradley introduced Dr. Joseph F. Boyle, Los Angeles, Calif., vice-chairman of the AMA Board of Trustees, who addressed the House of Delegates.

Dr. Bradley then presented a progress report on MOMEDICO and invited the MSMA members to attend the annual stockholders' meeting at 2 p.m. on April 11.

Dr. Bradley then made a special presentation to Dr. Irving Clark, Kansas City, who had served as chairman of the MOMEDICO Board of Directors since its inception three years ago. The plaque reads as follows:

> "Presented to Irving H. Clark, M.D., in sincere appreciation and recognition for your efforts and your dedication in establishing Missouri Medico."

Dr. John Martin, chairman of the MMPAC Board, presented a report on MMPAC and urged all MSMA and Auxiliary members to join.

Supplementary Council Report

Dr. John I. Matthews, chairman of the Council, presented the following supplementary report of the Council:

"The MSMA Council met at 3:00 PM on Wednesday, April 8, 1981, in the Chase Club of the Chase-Park Plaza Hotel in St. Louis, Missouri. On motion, duly seconded, the Council approved the minutes of the February 7, 1981, meeting.

"Mr. Cooper presented Dr. Bradley with a medallion commemorating his year as MSMA President, as previously approved by the Council.

"A recent Attorney General's opinion ruled that under current state statutes the Board of Healing Arts may seek an injunction to prevent a physician from performing in a harmful manner.

"Due to a recent court decision involving a Doctor of Osteopathy using the designation M.D. rather than D.O., the State Board of Registration for the Healing Arts will now indicate an actual degree designation on a physician's license. Mr. Cooper reported that there will be two vacancies on the Board of Healing Arts in September and asked those present to submit nominations.

"The Board of Healing Arts has asked for information from the MSMA to assist them in developing rules and regulations on physician advertising. This item was referred to the Liaison Committee to the Board of Healing Arts for study and recommendation.

"Mr. Cooper asked for Council approval for the following: (1) To allow Dr. Hansbrough, Dr. Clark and Mr. Cooper to vote 200 shares of MSMI stock owned by MSMA; (2) To allow Drs. Bradley, Williams, Clark, Hansbrough and Mr. Cooper to vote MOMEDICO shares owned by MSMA; (3) Approval of our agreement to extend our term with Boatmen's Bank on the notes from two to three years. On motion, duly seconded, the Council approved the above three items.

"The State Board of Nursing has proposed rules and regulations concerning nurses using the designation "Nurse Practitioner." Hearings on these rules will be held on May 1 in Kansas City, St. Louis and Springfield. On motion, duly seconded, the Council authorized the Ad Hoc Committee on Nurse Practitioners to appear at these hearings and express our opposition to these proposed rules and regulations.

"Mr. Cooper reported that in 1980, the MSMA was #1 in total AMA members increase and #1 in percentage of increase.

"Mr. Cooper suggested that there will be a surplus of physicians in the next few years. Perhaps physicians should start contemplating methods of implementing a patient-doctor relationship program. On motion, duly seconded, this matter was referred to the Committee on Planning.

"Mr. Cooper indicated that the Director of the Department of Social Services is seeking physicians to participate in a deferred compensation program under Medicaid.

"President Bradley indicated that in his President's address he would further an idea that the medical profession have something similar to the Bar Association where the medical needs of the local, state and federal areas are under the control of those people who deliver that care. Dr. Bradley brought up several complaints that he had received on inaction by the Board of Healing Arts.

"Dr. Matthews introduced Dr. Joseph F. Boyle, Vice-Chairman of the AMA Board of Trustees. Dr. Boyle presented brief remarks and indicated that he would give a more detailed presentation to the House of Delegates.

Mrs. Fakhoury, president of the MSMA Auxiliary, stated that the Auxiliary has 150 members less this year. She updated the Council on some of the various projects that the Auxiliary are currently undertaking. An Auxiliary Legislative Day was held on March 24 in Jefferson City. She invited all those present to attend the Auxiliary auction on Thursday evening. Mrs. Fakhoury thanked the Council for the privilege of being Auxiliary president and asked for their future cooperation with the new president, Mrs. Jerry Meyer.

"Dr. Williams discussed Resolution #2 from the 1980 Interim Session that instructed the Council to study methods of providing payment of expenses for medical students to attend Annual and Interim Sessions. Dr. Peterson mentioned that currently there is no statistical data on the number of medical students attending Annual and Interim Sessions. On motion, duly seconded, it was agreed that statistical data on medical students attending Annual Sessions would be gathered for an indepth report to the House.

"Dr. Bradley gave a brief report on MOMEDICO and indicated a comprehensive report would be presented to the House of Delegates and at the Shareholders Meeting.

"Dr. Meyer, speaker of the House, addressed the Council on procedural matters at the upcoming House of Delegates.

"The following resolutions were approved by the Council for introduction into this Session of the House of Delegates and are on the tables in front of you: (1) Induced Abortion Questionnaire; (2) Professional Liability Legislation; and (3) Chiropractic Policy.

"Dr. Matthews presented a report on legislative issues. A comprehensive report will be distributed to the House of Delegates on Thursday.

"Dr. Moranville discussed some problems with the Medicaid Claim Form. The Council referred this to the Commission on Medical Economics.

"Mr. Cooper reported that I.C. Systems (the MSMA endorsed collection agency) is currently collecting approximately $40,000 a month for members. The only MSMA-sponsored insurance program that is currently requesting an increase in premiums is the major medical program. This increase will amount to 20% effective July 1, 1981. Along with this increase, they will provide better benefits for hospital room charges. On motion, duly seconded, the Council approved this premium increase.

"Dr. John Walterscheid recently resigned as Second District Councilor and Dr. Patricia Avila is Councilor in this District.

"Dr. McCanse, MSMA Immediate Past-President, expressed his appreciation to the Council members for their help and cooperation throughout his year as Councilor and Officer.

"During the Executive Session of the Council, Dr. Gary Dyer presented the Council with additional samples of membership certificates and asked the Council to develop another certificate for future years. Dr. Matthews appointed Dr. Dyer to serve as Chairman of an ad hoc committee to develop a suitable certificate. The new Chairman of the Council will name additional members.

"Dr. Moranville furnished the Council with additional information concerning a nursing home medicaid problem in Columbia."

Nominating Committee

President Bradley appointed the following members to the Committee on Nominations:

Patrick B. Haar, *First District;* Carl R. Kruse, *Second District;* Robert R. MacDonald, *Third District;* William R. Richardson, *Fourth District;* Benjamin N. Jolly, *Fifth District;* Candice A. Moore, *Sixth District;* Robert C. Fairchild, *Seventh District;* Donald E. Menchetti, *Eight District;* Martin Hasek, *Ninth District;* Melvin Kasten, *Teneth District;* and Ken Harwood, *student component medical societies.*

At the request of the speaker, members of the House of Delegates stood for a moment of silence in memory of members of the Missouri State Medical Association who had died in the past year. The memoriam resolution and list of deceased members are published on page 382.

The speaker referred the delegates to the prefiled resolutions to be considered at the second session and reminded them that additional resolutions could be introduced at the second session for a two-thirds vote of acceptance by the House.

The speaker adjourned the first session of the House of Delegates.

SECOND SESSION

The second session of the House of Delegates was called to order at 4 PM on Friday, April 10 by Jay Meyer, speaker.

Dr. Gunn, chairman of the Credentials Committee reported that eight officers, 19 councilors and 258 delegates were present and constituted a quorum.

CONSTITUTION AND BYLAWS

Dr. James P. Hopkins of Kansas City, chairman, reported the following considerations of the Reference Committee on Constitution and Bylaws.

Consent Calendar

1. Report of Committee on Constitution & Bylaws
2. Report of Committee on Legislative Affairs
3. Report of Commission on Medical-Legal Affairs

(The chairman requested that the report and the supplementary report of the Committee on Constitution and Bylaws be transferred to the agenda under "Unfinished Business." This request and the other above items were approved.)

House actions on the following resolutions are reported in the section on "Resolutions" on pages 375-378:

Resolution #1 — Hospital Governing Bodies
Resolution #3 — Smoking and Health
Resolution #5 — Amendment to the Present Licensure Board Act for Physicians
Resolution #7 — Medical Societies Interchange with Students and Professors
Resolution #18 — Disaster Planning
Resolution #21 — Injuries to Institutionalized Patients
Resolution #23 — Membership Delinquency Date
Resolution #24 — Physician's Code of Ethics
Resolution #29 — Opposition to Expansion of Optometry
Resolution #35 — Chiropractic Policy
Resolution #36 — Hospital-Staffed Satellite Clinic

REPORTS OF OFFICERS

Dr. Joseph J. Lauber of St. Louis, chairman, reported the following considerations of the Reference Committee on Reports of Officers:

Consent Calendar

1. Report of the President
2. Report of the President-Elect
3. Report of the Secretary
4. Report of the Treasurer
5. Report of the Executive Secretary
6. Report of the MSMA Auxiliary
7. Report of the Commission on Public Affairs
8. Council Minutes
9. Report of the Missouri State Medical Foundation

(There being no objections, the above items were considered as adopted.)

House actions on the following resolutions are reported in the section on "Resolutions" on pages 375-378:

Resolution # 2 — Annual Physicals for Patients in Long-Term Health Care Facilities
Resolution # 4 — Designation of Trauma Centers
Resolution # 9 — Report on Public Relations Program
Resolution #15 — AMA Membership
Resolution #20 — Promoting Medical/Nursing Understanding
Resolution #28 — Emergency Room Physicians
Resolution #32 — Location of Annual Session

RESOLUTIONS

Dr. Francis M. Corry of Springfield, chairman, reported the following considerations of the Reference Committee on Resolutions:

Consent Calendar

1. Report of the Committee on the Impaired Physician
2. Report of the Committee on Voluntary Health Agencies
3. Report of the Commission on Continuing Education and Health Manpower
4. Commission on Interspecialty Medicine
5. Commission on Medical Economics, Third Party Medicine and Governmental Relations

(There being no objections, the above items were considered as adopted.)

House action on the following resolutions are reported in the section on "Resolutions" on pages 375-378:

Resolution #6 — Medicaid Study
Resolution #7 — Insurance Companies' Use of the Phrase, "Usual, Customary and Reasonable"
Resolution #8 — Nursing Home Visitation
Resolution #10 — Medical Care Under CHAMPUS
Resolution #11 — Caring for the Poor
Resolution #12 — Repeal of PSRO
Resolution #13 — Repeal of Medicare
Resolution #14 — Repeal of Medicaid
Resolution #16 — Repeal of PSROs
Resolution #19 — Health Care Delivery to the Poor
Resolution #22 — Funding of Medicaid
Resolution #25 — Repeal of HSA Legislation
Resolution #26 — Medicaid Level of Payments
Resolution #27 — Local Problems, Local Action
Resolution #30 — Mental Health Funding
Resolution #33 — Professional Liability Legislation

The meeting was recessed until the third session on Sunday, April 12.

THIRD SESSION

The third session of the MSMA House of Delegates was called to order by Dr. Meyer at 7:30 AM on Sunday, April 12.

Dr. Gunn, chairman of the Credentials Committee, reported that eight officers, 19 councilors and 257 delegates were in attendance and constituted a quorum.

NOMINATION COMMITTEE

Dr. Robert MacDonald of St. Louis, chairman of the Committee on Nominations, submitted the names of the following members on the slate of officers for the ensuing year:

Vice-President — Dr. Charles P. McGinty, Cape Girardeau
Vice-President — Dr. George M. Bohigian, St. Louis
Vice-President — Dr. Donald E. McIntosh, Kansas City
Speaker — Dr. Jay Meyer, St. Louis
Vice-Speaker — Dr. Barbara Buchanan, Kansas City
AMA Delegate — Robert A. Slickman, Kansas City
AMA Delegate — Dr. Melvin C. Kasten, Cape Girardeau
AMA Alternate Delegate — Dr. Vernon Balster, St. Louis
AMA Alternate Delegate — Dr. Marvin A. Singleton, Joplin

(There were no nominations from the floor. The slate of officers was elected by acclamation.)

Dr. Ben Moranville, secretary, announced that the following councilors and vice-councilors had been elected:

Second District — Dr. Patricio Avila, Hannibal
Vice-Councilor — Robert V. Tompson, Moberly
Third District — Dr. Thomas J. Cooper, St. Louis
Dr. Richard H. Fallon, St. Louis
Dr. James M. Stokes, St. Louis
Dr. Robert R. MacDonald, Jr., St. Louis
Fourth District — Dr. William R. Richardson, Union
Vice-Councilor — Dr. Paul H. Rother, St. Charles
Fifth District — Dr. Larry E. Millikan, Columbia
Vice-Councilor — Dr. Alan L. Braun, Jefferson City
Sixth District — Dr. A. J. Campbell, Sedalia
Vice-Councilor — Dr. Jerry Meyer, Concordia
Seventh District — Dr. Donald E. McIntosh, Kansas City
Dr. Larry G. Piepergerdes, Kansas City
Vice-Councilor — Dr. Milton B. Ozar, Kansas City
Eighth District — Dr. Walter A. German, Springfield
Vice-Councilor — Dr. Charles J. Ash, Springfield
Tenth District — Dr. George H. Ladyman, Poplar Bluff
Tenth District — Dr. George H. Ladyman, Poplar Bluff
Vice-Councilor — Dr. Melvin C. Kasten, Cape Girardeau
Student Councilor — Tim Harwood, Columbia

At this time, Speaker Meyer turned the gavel over to Dr. Barbara Buchanan, vice-speaker.

Courtesy Resolution — Thomas F. Frawley, M.D.

Introduced by Dr. Robert R. MacDonald, St. Louis

Whereas, Thomas F. Frawley, M.D. was elected to active membership in the St. Louis Medical Society December 19, 1963 and

Whereas, Dr. Drawley has supported organized medicine as a member of the MSMA and AMA, and

Whereas, Dr. Frawley is the first physician from Missouri to be installed as President of the American College of Physicians at the group's annual meeting in Kansas City, Missouri, April 9, 1981, herefore be it

Resolved, that the MSMA House of Delegates sends its congratulations and best wishes to him as the 1981-1982 President of the American College of Physicians.

(The resolution was adopted unanimously.)

Installation of Officers

The speaker invited the officers, councilors and vice-ouncilors to stand in front of the podium where Dr. B. A. Moranville, secretary, administered the oath of office.

Dr. John I. Matthews, newly elected president-elect, was escorted to the Speaker's stand where he made a brief acceptance speech. Mrs. Matthews also was escorted to the tand and introduced to the House of Delegates.

The speaker invited President Eugene Hansbrough to nnounce his comittee and commission appointments for the 981-1982 year. Members whose terms had not expired were not mentioned and it is assumed that they will continue to erve.

Committee Appointments

Committee on Constitution and Bylaws — Kirby L. Turner, Poplar Bluff, and Roy Gillispie, Branson (terms expire in 984); Robert R. MacDonald, St. Louis, chairman for 1981-982.

Committee on Planning — Dan T. Sullivan, Springfield nd Joe L. Spears, Cabool (terms expire in 1986); Melvin C. Kasten, Cape Girardeau, chairman for 1981-1982.

Committee on the Impaired Physician — Philip J. LeFevre, Springfield, and John J. O'Hearne, Kansas City terms expire in 1984); David L. Ohlms, St. Louis, chairman for 1981-1982.

Liaison Committee with the Board of Healing Arts — T. J. Cooper, St. Louis, *chairman;* Donald McIntosh, Kansas City; John I. Matthews, Jefferson City; John N. Martin, St. oseph; Howard J. McAlhany, Springfield; and E. T. Hansbrough, Poplar Bluff, ex officio (terms expire in 1982).

Committee on Voluntary Health Agencies — James B. Earnest, Kansas City, and Jay Liss, St. Louis (terms expire in 984); Newton C. McCluggage, North Kansas City, chairman for 1981-1982.

Commission Appointments

Commission on Continuing Education and Health Manower — Raymond O. Frederick, Clayton; George Trimble, Kansas City; Ronald T. Hill, Dexter (terms expire in 1984); Larry E. Benson, North Kansas City; George D. Comfort, Mexico; William D. Bradshaw, Columbia, chairman for 981-1982.

Commission on Medical Economics, Third Party Medicine nd Governmental Relations — Stanley S. Peterson, Springfield; Howard Roberts, Joplin; Thomas H. Hendren, Liberty (terms to expire in 1984); Nicholas J. Colosi, St. Louis; Edward J. Twin, Kansas City; Fred W. Hahn, Kansas City, chairman for 1981-1982.

Commission on Medical-Legal Affairs — Fred H. Thornton, Sikeston; Raymond Hartwig, Kansas City; George L. Hawkins, Jr., St. Louis (terms to expire in 1984); Edward Bare, Tarkio; John J. Krautmann, Jefferson City; Garth S. Russell, Columbia, chairman for 1981-1982.

Commission on Public Affairs — A. J. Campbell, Sedalia; Chris Fotopoulos, Osage Beach; W. Kendall McNabney, Kansas City (terms to expire in 1984); Robert F. Tobin, St. Joseph; Jean A. Chapman, Cape Girardeau; Charles L. Jobe, Springfield, chairman for 1981-1982.

Commission on Interspecialty Medicine — It is the policy for the president of the Association to appoint representatives of the specialty organizations making up the Commission on Interspecialty Medicine as recommended by those specific organizations. Some of these organizations had not provided names of their proposed representatives by this date. Following are appointments of representatives who have been recommended:

Missouri State Allergy Association, Phillip E. Korenblat, St. Louis; *Missouri Society of Anesthesiologists*, Donald E. McIntosh, Kansas City; *Missouri Dermatological Society*, Larry E. Millikan, Columbia; *Missouri ENT Society*, Kenneth Buchwach, Kansas City; *American College of Emergency Medicine*, R. R. Hannas, Kansas City; *Missouri Society of Internal Medicine*, R. William Burmeister, St. Louis; *Missouri State Neurological Society*, Francis S. Walker, St. Louis; *Missouri Ophthalmological Society*, Nicholas J. Colosi, St. Louis; *Missouri State Orthopaedic Association*, Charles J. Ash, Springfield; *Missouri Society of Pathologists*, T. J. Cooper, St. Louis; *Missouri Chapter, American Academy of Pediatrics*, Donald L. Thurston, St. Louis; *Physical Medicine and Rehabilitation Association of Psychiatrists*, Otakar Machek, St. Louis; *Missouri Psychiatric Association*, Thomas Mangelsdorf, St. Louis; *Missouri Chapter, American College of Surgeons*, Charles B. Anderson, St. Louis; *Missouri State Surgical Society*, Cyril Costello, St. Louis; *Missouri Thoracic Society*, James R. Wiant, St. Louis.

It was voted to hold the 124th Annual Session in 1982 at the Hyatt-Regency Hotel in Kansas City, the dates to be determined by the Council.

It was voted to hold the 125th Annual Session in 1983 at the Lake of the Ozarks and the 126th Annual Session in 1984 in St. Louis, the site and exact dates to be determined by the Council.

The speaker adjourned the 123rd Annual Session of the MSMA House of Delegates.

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6. What is MDA's attitude toward settlements and defense of claims?

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Report of Committees and Commissions

REPORT OF COMMITTEE ON CONSTITUTION & BYLAWS

The Committee on Constitution and Bylaws did not meet during the period following the 1980 Annual Session since no issues were referred for our consideration.

However, at the Interim Session, a proposed Constitutional amendment to delete the Interim Session was approved by the House of Delegates. In accordance with our Constitution, this proposed amendment may be considered at this meeting since it was presented at the previous open meeting of the House, was sent to each component society at least two months prior to this meeting and was published at least twice during the year in the *Journal*. Therefore, the following proposed amendment is before the House: [bracketed words are deleted]

> Article VI. Section 1. The Association shall hold an annual Spring session [and an interim Fall session] of the House of Delegates, at places fixed by the House of Delegates, the time of which shall be fixed by the Council.

If the above amendment is not adopted, the report of this committee is complete at this point.

If the above amendment is adopted, the following changes in the Bylaws are submitted by the Committee on Constitution and Bylaws and must lay on the table for one day prior to consideration: [bracketed words are deleted]

> Chapter III. Section 1 [(b). The House of Delegates shall meet annually at an interim Fall session at places fixed by the House of Delegates and at times fixed by the Council.]
>
> Chapter VI. Section 1. The Council shall meet during the Annual [and the Interim] Session[s] at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice-Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.
>
> Chapter XII. Section 1. These Bylaws may be amended at any Annual [or Interim] Session by a two-thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Robert R. MacDonald, Jr., *Chairman*
William D. Soper
Roy Gillispie
R. Stacy Long
Miles C. Whitener

REPORT OF THE COMMITTEE ON THE IMPAIRED PHYSICIAN

The Committee on the Impaired Physician met on April 17, September 7 and December 15, 1980. The Committee is pleased to announce that after two years in operation, several complete recoveries from drug and alcohol-related impairments have been made. The Committee is extremely pleased that these individuals have been helped.

Although there have been successes, your Committee h been diligently seeking qualified individuals to serve as co fronters. In each meeting this year, this has been a topic concern.

During the September 7, 1980 meeting, the Committe went on record seeking reimbursement for confronters an Committee members. It was pointed out that the time out the office and mileage were burdens to the confronters. Th Committee agreed that confronters should at least be reim bursed for actual mileage.

During the December 15, 1980 meeting, Dr. Block pr sented the Committee with a proposal from the wife of deceased impaired physician. The wife wanted to sponsor yearly program on impairment, primarily directed to med cal students and hospital residents. The Committee has fe since its conception that the root of many problems develo in medical school. It is our hope that by better educatin students in impairment and stress management, some prol lems could be alleviated. It would be necessary for addition funding to be secured. The Committee agreed that this was most valuable program and should be supported by th MSMA. As a result, the Committee solicited the MSM Budget Committee for additional funding. On January 1(1981, the MSMA Budget and Finance Committee approve a grant of $1,000.

The Committee wishes to thank the MSMA membershi and Councilors for making this vitally important program success. Physician impairment is an unpleasant reality. It our obligation to help our colleagues, our patients and, i deed, ourselves.

Arnold S. Block, *Chairman*
Francis X. Lieb
James E. Young
Henry V. Guhleman
David L. Ohlms

REPORT OF COMMITTEE ON LEGISLATIVE AFFAIRS

The Missouri General Assembly is in an apparent period o transition . . . a transition from protecting the health of th public through endorsement of strict licensure and practice laws to an attitude of laissez-faire. The seeming movement i to push for expanded scopes of practice for limited licens professionals in the belief that these professionals are qualified to offer more health care than at the present . . . and perhaps, at a lower cost.

The chiropractors are urging adoption of a bill whic would expand their area of practice from the spine to th whole body while increasing their method of treatment fro hand manipulation to the use of *any* electrical, mechanical o natural means. The MSMA has stated in testimony tha chiropractors are not educated or trained to provide thes services.

Optometrists are again seeking statute changes to allo them to use certain topically applied drugs in the eyes. Th bill has progressed rather swiftly in the Senate, but the bill' sponsor will offer amendments endorsed by medicine tha will provide better protection for the public.

More than a dozen allied health groups are seeking licensure or registration, i.e., occupational therapists, socia orkers, athletic trainers, physical therapy assistants, etc. istorically, licensure initially leads to a shortage of people provide a service and a resulting increase in costs for that rvice. And, down the road, each licensed group usually ecides to expand their scope of practice into the medical ea.

Why are these professions gaining the ear of the Missouri eneral Assembly? Several reasons.

Many states across the nation have already granted addi- onal powers to limited license professionals. These statis- es are used in each hearing and each individual visit with nators and representatives.

Those individuals seeking expanded practice laws or licen- ire are keenly interested in "their" bills and work long and ird with their lawmakers. Energy and effort can sometimes ercome logical, scientific facts.

MSMA members, and all physicians in our state, have parently been misled over the years to believe that "good ill's out." They are wrong!

Much of the change in the Missouri General Assembly can attributed to the initiation of annual legislative sessions id the emergence of full-time legislators. Detrimental bills e introduced annually as dedicated supporters work to get vote here, a vote there. Also, full-time legislators are more one to help small groups on one issue figuring they can lp others, such as the MSMA, on other issues.

Medicine's problems in the legislative field can be mmed up by examining our vital Legislative "Key Con- ct" Program. A few years ago, the Association foresaw our rrent situation and formed the "Key Contact" Program to sure that each Missouri Legislator had a physician and, rhaps, an Auxilian who would share medicine's views on nding legislation. And, by signing up agreeable physicians re and an Auxiliary member there, our goal was soon tained. These "Key Contacts" were placed on our weekly ailing list to receive and, when asked, share the Associa- n's thoughts on bills. However, although all of these ames" were assigned to Legislators, few Legislators ever eeived any communication from the "Contacts."

Annually, the "Key Contact" list is checked, added to and red. In the last month, the list was dropped from more an 500 individuals to a bit more than 200. Why? The 300 at were dropped would not even return a questionnaire to SMA Headquarters, much less contact their Legislator.

You are invited, no urged, to stop by the MSMA Registra- n area to see how your District stands with "Key Contacts" . 116 of the 163 Representatives have no or too few ontacts." Is it any wonder medicine is not being heard in fferson City?

Your Committee joins with Dr. Walter German, chairman the Committee on Political Affairs, to publicly thank those dicated physicians and their wives who *do* serve as active ontacts." But this small group, as hard as they try, will not able to stem the growing tide that threatens quality health e for the citizens of Missouri.

The concerted efforts of all of us here today and our leagues at home are vitally needed in this area. Remem- r, we are talking about the care of people who are your tients . . . for now!

John I. Matthews, *Chairman*
Richard V. Bradley
Eugene T. Hansbrough
Irving H. Clark
Hubert A. Ritter
Douglas Westhoff
Walter A. German
Richard C. Hedges

Dr. Clark and Dr. Stokes to Head MSMA Council

Dr. Irving H. Clark, Kansas City, was elected chairman of the Council for 1981-1982 at the council meeting that followed the MSMA House of Delegates session on April 12. Dr. James M. Stokes, St. Louis, was elected vice-chairman.

The Council also elected Dr. B. A. Moranville, Columbia, as secretary of the MSMA and reelected Dr. Carol F. Williams, St. Louis, as treasurer.

REPORT OF THE COMMITTEE ON VOLUNTARY HEALTH AGENCIES

On September 7, 1980, the Committee on Voluntary Health Agencies met with representatives of four voluntary health organizations at the Ramada Inn in Columbia, Missouri.

After the agency representatives outlined the current research, educational and service programs of their organization, the group then questioned each other on topics of mutual concern.

The discussion among the committee and the representatives led to the following suggestions for coordinating efforts of the MSMA and the voluntary health agencies: (1) The group discussed the need for physicians to be more knowledgeable of the services available from the various agencies. (2) A suggestion was made that a Voluntary Health Agencies meeting be held during the MSMA Annual Session to encourage a larger number of physicians and agencies to participate and to facilitate contact between the physicians and agencies. (3) To encourage more physician participation with the voluntary health agencies, the possibility of the agencies sponsoring booths or programs at the Annual Meeting was discussed.

The Committee also discussed the possibility of expanding the agency services listed in the Directory of Voluntary Health Agencies presently published in the MSMA Directory. A suggestion was made by the Committee to look into the possibility of a separate and more extensive directory to be funded jointly by the MSMA and voluntary health agencies.

The Committee and the representatives present agreed that these meetings are useful to maintain open communications between the MSMA and the voluntary health agencies, especially with those agencies with few physicians active in their group.

Brent M. Parker, *Chairman*
John D. Arnold
Guy Magness
Darrel Domann
Newton C. McCluggage

REPORT OF COMMISSION ON MEDICAL-LEGAL AFFAIRS

The Conjoint Medical-Legal Committees of the Missouri State Medical Association, Missouri Association of Osteopathic Physicians and Surgeons and the Missouri Bar Association met on January 17, 1981 in Columbia, Missouri. The members included five representatives of the MSMA, four representatives of the MBA and four representatives of the MAOPS. Staff from all three groups were also in attendance.

Pending legislation before the current Missouri General Assembly was discussed. Members expressed a clear preference and strong support for either of the two bills that will provide a determination of death. Legislation authorizing living wills was supported in concept, but the current legislation is unacceptable as written. The phraseology "living wills" was deemed as contradictory and new phraseology and a model bill should be sought by members with an interest in this subject. Objections were raised regarding the current legislation providing patient access to medical records. It was further noted that there are other means to accomplish the purpose of the legislation besides through legislation. SB 300 regarding contributory negligence was found to have little or no impact for medical cases.

The failure of the Division of Insurance to report the statistics on professional liability cases was discussed. Section 383.115 RSMo 1978 states "statistics in summary form of the information submitted pursuant to sections 383.100 to 383.125 . . . shall be a matter of public record." The Division of Insurance has not been providing these statistics since the National Association of Insurance Commissioners ceased compiling them in 1979. It was urged that the State Auditor be informed and the Division of Insurance be asked to comply with this law. Appropriations necessary to accomplish this will be supported and alternatives for gathering this information will be investigated should the funds not be forthcoming.

Several problems concerning the professional code were discussed. Two pending disputes were discussed and referred to the appropriate state association for assistance. Dr. Medlicott reported on what appears to be an extraordinary number of professional liability suits in Pettis County. Two members of the Bar agreed to investigate.

Following adjournment of the conjoint meeting, MSMA members met afterwards for a MOMEDICO report. Dr. Garth Russell reported the company currently has 1,450 insureds. During 1980, shares of common stock were offered to physicians for purchase and are now available for the public. The MSMA will retain control of MOMEDICO, but it is now a profit-making company registered with the Securities and Exchange Commission. Dr. Russell reported there have been recent rate increased resulting from increases in the number of suits being filed. It is very possible we will see more suits over the short term.

William J. Medlicott, *Chairman*
Robert H. Lund
Richard Bower
Charles B. Wheeler
Vicente D. Deles
Garth S. Russell
David W. Hall
Jay Meyer
Bernard Draper
Gil Manalo
Fred H. Thornton
William R. McPhee
George L. Hawkins, Jr.
Edward Bare
Richard O. Craig

REPORT OF THE COMMISSION ON CONTINUING EDUCATION AND HEALTH MANPOWER

The Commission reviewed the charges of this Commissio as set forth in the Constitution and Bylaws to determine th objectives for 1980. There was a great deal of discussio concerning the future directions of the Commission on Continuing Education and Health Manpower. It was projecte that during this year, there would be a fairly high level activity involving each Commission member. The budge provides travel expenses for each Commission member an it was felt that each member should have the option submitting expenses incurred during a Commission activit

It was also agreed that the fees set for conducting site tear surveys should be reinstated. It was agreed the initial fee fo hospitals and institutions should be $250.00 and that reasonable fee for a resurvey should be $100.00. It wa determined that individual county medical societies woul be exempt from these fees. However, specialty societie would be charged $100.00 for the initial site survey and resurvey fee of $50.00 would be charged.

A letter was forwarded to all nonmembers participating i the MSMA Continuing Medical Education Program indicat ing that a fee of $100.00 per year would be assessed to defe expenses in recording their CME activities. After reviewin the fee structures for various activities within the Association, this was determined to be a reasonable fee.

It was felt by those present that there is a definite need fo reactivating the Ad Hoc Committee on Health Manpower

Each member was provided responses from the America College of Physicians and the Missouri Society of Interna Medicine concerning the AMA Report "Future Directions Medical Education." Comments of individual member were asked to be directed to their Councilors.

The following organization and institutions were accredited as a sponsor for Category 1 CME activities: Missou State Allergy Association; Independence Sanitarium an Hospital, Independence; St. John's Medical Center, Jopli and Faith Hospital West, Creve Coeur.

William D. Bradshaw, *Chairman*
Christopher H. Jung
Wilbur A. Mullarky
Walter C. Dandridge, Jr.
W. Wayne Boydston
H. Neal Grannemann
L. Arden Almquist
Manuel R. Comas
John C. Soucy
Charles A. Worley
Raymond O. Frederick
Gerard M. Callaghan
Charles N. Mullican
Larry Ozenberger
George D. Comfort

REPORT OF THE AD HOC COMMITTEE — 123RD ANNUAL SESSION

The members present reviewed the critique sheets pr vided by monitors assigned to the various Scientific Sessio during the 122nd Annual Session on April 18-19, 1980 Crown Center Hotel in Kansas City. Comments from mon tors indicated that the Scientific Sessions were very w attended and that many of the rooms, due to the increase attendance, were too small.

Suggestions for topics and speakers for the upcomi Opening General Session were considered and evaluate

The speakers will be contacted by staff. Members of this Committee are to be consulted at a later date concerning the results and suggestions were also made for consideration by he Program Committee on the entertainment during the Annual Banquet.

The Ad Hoc Committee commended the quality of the programs sponsored by the specialty societies and voluntary health agencies during the 122nd Annual Session and also wished to express appreciation to the monitors for taking ime from their schedule to assist the committee.

William D. Bradshaw, *Chairman*
Christopher H. Jung
Wilbur A. Mullarky
Walter C. Dandridge, Jr.
H. Neal Grannemann
L. Arden Almquist
George D. Comfort
Raymond O. Frederick

REPORT OF COMMISSION ON MEDICAL ECONOMICS, THIRD PARTY MEDICINE & GOVERNMENTAL RELATIONS

The Commission met on January 24, 1981 in Columbia, Missouri. As in the past, the bulk of the meeting dealt with he Medicaid program.

The Commission received a report from Marc VanDen-ark, professional relations manager for Electronic Data Sys-ems Federal (EDSF). Marc distributed material describing he performance of EDSF since August 1, 1979. New hanges in 1980 included extension of time limits to file laims from 90 days to one year, the addition of two WATS nes and a new policy that EDSF will no longer make lterations in submitted claim forms. Problems in 1980 in-luded maintaining an up-to-date listing of eligibles and ifficulties in paying Medicare crossovers. Both problems ave been resolved.

For 1981, a new claim form (HCFA 1500) will be instituted or both Medicare and Medicaid. The form will be used eginning in June, 1981 with workshops by EDSF occurring mmediately prior and after its implementation. In respond-ng to questions, Marc stated that a single fee for single ervice policy has been implemented; it is still necessary for hysicians to file a claim for each visit by a mother receiving atal care; and EDSF is ready to implement a magnetic tape illing system if the state will approve it.

Mr. Ronald Lang of the Public Employee Benefit Services orporation (PEBSCO) made a presentation before the ommission describing a program of deferred compensation r physicians participating in Medicaid. Mr. Lang stated he waiting for the applications of two or three physicians equesting enrollment in the deferred compensation pro-ram. He will then approach the state to request their per-ission to begin the program. Physicians who are incorpo-ted may not participate in an eligible state deferred com-ensation plan.

Dr. Max Heeb described the activities and purposes of the hysicians Medicaid Advisory Committee. He and his fellow embers were complimented on their participation in this mportant activity.

The FY 1981 Medicaid expenditures and FY 1982 re-uested appropriations were discussed. Emergency appro-iations were necessary for FY 1981 and the FY 1982 re-uest is below this amount. The Commission, on motion, rged physicians to contact the appropriate state officials, rging full funding of the Medicaid program in this and the ext fiscal year. The Commission further agreed to submit a resolution to the Annual Session for debate by the House of Delegates. The resolution would request the Division of Family Services to continue to pay at current or increased rates until all funds are depleted. At that time, until the end of the fiscal year, physicians will continue to take care of the poor without anticipation of receiving payment. The Division of Family Services will advertise its depletion of funding and the support of physicians in carrying out responsibilities to take care of the poor in need of medical services.

The Commission was informed that rules and regulations implementing HB 88 have been promulgated. The rules provide a process for Medicaid Providers to seek review of decisions by the Division of Family Services. The rules and regulations are available from staff at the MSMA office.

The Commission was given a document describing the activities of the Medicare carriers in Missouri, upcoming changes in the Medicare program, and an analysis of recent amendments to the program made by Congress. The new HCFA 1500 form and the magnetic tape billing program of General American was discussed in detail.

The Commission was given a document describing the activities of Wisconsin Physician Service as CHAMPUS fiscal intermediary for Missouri, a brief history of the CHAMPUS Program, and recent benefit changes in the program. The material was discussed. Mr. Dennis Martin, P.O. Box 204, Grandview, Mo. 64030, was recently appointed as Missouri CHAMPUS Field Representative.

Following discussion of the benefit changes, the Commission agreed to submit a resolution to the MSMA Annual Session opposing CHAMPUS policy allowing the payment of allied health personnel practicing independent of physician referral and supervision. There is no evidence that this is less expensive and physicians are becoming more available throughout all areas served by CHAMPUS.

HMO developments around the state were discussed. Brochures describing the Blue Shield Individual Practice Program in St. Louis were distributed to the Commission. Dr. Callaghan informed the Commission of further HMO activities in the St. Louis area. Dr. Peterson described his activities in establishing an IPA in Springfield and responded to a number of questions about HMOs in general. Doug Viehland informed the Commission of developments in the Kansas City area.

Copies of HB 655 were given to all Commission members. HB 655 provides for the certification and regulation of health maintenance organizations by the Division of Insurance and the Division of Health.

Gerard M. Callaghan, *Chairman*
Fred W. Hahn
Charles H. Cozean
Frederick L. Thompson
Arturo C. Montes
Robert J. Stanley
Mary K. McCaffree
Max A. Heeb
James L. Carpenter
Philip A. Sherman
Stanley S. Peterson
John R. Esther
Thomas H. Hendren
R. Phillip Acuff
A. E. Braverman

REPORT OF THE COMMISSION ON PUBLIC AFFAIRS

The Commission on Public Affairs discussed the MSMA public relations program at its February 6, 1981 meeting. The Commission members reviewed the various public relations programs currently in effect, including the new radio public service announcements.

Approximately 150 radio stations throughout Missouri received 30-second radio spots from the Association in 1980. The spots were distributed in January, May, July and October and covered basic health topics.

The Commission voted to acquire more television public service announcements for distribution to Missouri television stations. The Commission also suggested to Council that a health-care costs brochure be produced to be placed in physicians' waiting rooms.

Members of the Commission felt that more effort should be made to acquaint MSMA members with the current MSMA public relations projects. At the Commission's suggestion, a display of the MSMA public relations projects will be shown at the Annual Session.

The Commission also made several recommendations regarding the resolution on toxic waste disposal referred to the Commission.

Jean A. Chapman, *Chairman*
A. J. Campbell
Sharon Waggoner
Harry S. Jonas
Robert F. Tobin
Charles L. Jobe
Elias M. Throne
Marvin R. Barbour
Leslie F. Bond
Edward J. Miller
Ben A. Moranville
Byron E. Watts
George H. Bohigian
Lawrence O'Neal
Vernon H. Balster

REPORT OF THE COMMISSION ON INTERSPECIALTY MEDICINE

The Commission on Interspecialty Medicine met on October 31, 1980 to discuss issues confronting each specialty.

The MSMA staff provided a detailed outlook for the 1981 General Assembly and anticipated legislation. There was considerable discussion on the Optometric Drug Bill defeated during the 1980 General Session. The Missouri Ophthalmological Society, Inc. presented its position on this bill and asked for support from the other specialties. The Commission voted to oppose the bill sponsored by Senator Richard Webster.

There was also considerable discussion regarding the bill on Licensure of Radiologic Technologists. The MSMA staff will monitor its progress. The bill permitting physicians to prescribe Laetrile received lengthy discussion. The Commission was reminded that any physician who signs the Laetrile Usage Form is legally responsible for the medical welfare of the patient.

The MSMA staff pointed out to the Commission that the bill on the Determination of Death, with broad support of the medical community, has a chance of passing this year. Further, it was pointed out that with this bill, future kidney-transplant patients would benefit, due to an increased cadaver kidney program. The Missouri Neurological Society indicated its opposition to the helmet law repeal and the MSMA will actively lobby to defeat the bill. The Commission is supportive of the child auto restraint legislation.

The current honorarium policy received considerable discussion. Many members felt that the current reimbursement is too low. A letter from Dr. Larry Millikan was read to the Commission in which he was requesting an increase in the amount of honorarium provided out-of-state speakers during the MSMA Annual Session. This issue was referred to the MSMA Council for further study.

Donald G. Sessions, *Chairman*
Larry E. Millikan
Donald McIntosh
R. R. Hannas
Carl R. Kruse
Jack D. Moore
R. William Burmeister
Francis S. Walker
George J. Fuchs
Nick Colosi
Charles J. Ash
William R. McPhee
Donald L. Thurston
Otakar Machek
Duane Hagen
William McAlister
Charles B. Anderson
Cyril Costello
James R. Wiant

124th Annual Session

April 1-4, 1982

Hyatt Regency Hotel
Kansas City

Changes in the MSMA Constitution

The following constitutional amendment was proposed at the 1980 Interim Session and was approved by the Committee on Constitution and Bylaws.

In accordance with the Constitution, the change was sent to each component medical society at least two months prior to this meeting and has been published in the Journal of the Association.

ARTICLE VI, Section 1

The Association shall hold an annual spring session of the House of Delegates, at places fixed by the House of Delegates, the time of which shall be fixed by the Council.

(Article VI, Section 1 was unanimously adopted and the MSMA Constitution was so amended.)

Changes in the MSMA Bylaws

The following bylaws amendments were adopted by he House of Delegates at the 1981 Annual Session. In accordance with the Constitution and Bylaws, hese changes were approved by a two-thirds vote of he delegates present after they had been properly ubmitted to the House of Delegates and had laid on he table for one day.

CHAPTER III. House of Delegates

(Bracketed words are deleted.)

[Section 1b. The House of Delegates shall meet annually at an iterim fall session at places fixed by the House of Delegates and at mes fixed by the Council.]

CHAPTER III. House of Delegates

(Bracketed words are deleted.)

Section 2a. Each Medical School Component Society shall be ntitled to send each year two delegates, elected by the component ciety, to the House of Delegates at the Annual [and Interim] ession[s]. Each delegate shall be a member in good standing with is Association and the Component Medical Society. Such student delegates shall enjoy all the rights and privileges of all other delegates.

CHAPTER VI. Council

(Bracketed words are deleted.)

Section 1. The Council shall meet during the Annual [and the Interim] Session[s] and at such times as necessity may require, subject to the call of the Chairman or on petition of three Councilors. It shall meet on the last day of the Annual Session to organize. The Council shall elect a Chairman and a Vice-Chairman for a term of one year. The Chairman may be reelected to serve not more than four consecutive terms of one year each. The Council shall, through its Chairman, make an annual report to the House of Delegates.

CHAPTER XII. Amendments

(Bracketed words are deleted.)

Section 1. These Bylaws may be amended at any Annual [or Interim] Session by a two-thirds vote of the delegates present and voting at that session, if the proposed amendment has been properly submitted to the House of Delegates and has laid on the table for one day.

Resolutions

Resolution #1 — Hospital Governing Bodies

(Introduced by Charles J. Ash, M.D., Springfield)

Substitute Resolution #1

Resolved, that the MSMA House of Delegates opposes the pasge of House Bill 527.

(Substitute Resolution #1 was adopted.)

Resolution #2 — Annual Physicals for Patients in Long-Term Health Care Facilities

(Introduced by Buchanan County Medical Society)

Resolved, that the Missouri State Medical Association respectfully quests the Joint Commission on Accreditation of Hospitals to scontinue the requirement of annual physicals for all patients in ng-term health care facilities.

(Resolution #2 was defeated.)

Resolution #3 — Smoking and Health

(Introduced by C. Stuart Exon, M.D., Jefferson City)

Resolved, that the Missouri State Medical Association declares itself to be in favor of legislation directed at maintaining many public areas in smoke-free condition, and be it further

Resolved, that the Missouri State Medical Association sets an example in this matter by prohibiting from this time forward all smoking in official meetings of the House of Delegates and in the scientific sessions which are held in conjunction with the meetings of the House.

(Resolution #3 was adopted as amended.)

Resolution #4 — Designation of Trauma Centers

(Introduced by the MSMA Council)

Substitute Resolution #4

Resolved, that the Missouri State Medical Association advises the Missouri Committee on Trauma of the Association's discontent with the Committee in its attempt to designate Trauma Centers in Missouri without seeking the input of the Missouri State Medical Association; and, be it further

Resolved, that any future determinations in reviewing and considering criteria for the designation of Trauma Centers in Missouri be done with the cooperation of the MSMA.

(Substitute Resolution #4 was adopted.)

Resolution #5 — Amendment to the Present Licensure Board Act for Physicians

(Introduced by George M. Bohigian, M.D.,
St. Louis Metropolitan Medical Society)

Substitute Resolution #5

Resolved, that the Missouri State Medical Association supports, through proper legislative means, an addendum to the present law which would allow the Board to temporarily suspend the certificate of qualification of a physician, simultaneously with the institution of proceedings for a hearing provided under this section, if the Board finds evidence in its possession that indicates the physician's continuation of practice would constitute an immediate danger to the public.

(Substitute Resolution #5 was adopted.)

Resolution #6 — Medicaid Study

(Introduced by George M. Bohigian, M.D.,
St. Louis Metropolitan Medical Society)

(Refer to Resolution #19 for action on Resolution #6.)

Resolution #7 — Insurance Companies' Use of the Phrase "Usual, Customary and Reasonable"

(Introduced by T. Cameron MacCaughelty, M.D.,
St. Louis Metropolitan Medical Society)

Resolved, that the Missouri State Medical Association vigorously opposes the use of the phrase "usual, customary and reasonable" by third party carriers and urges that the phrase "maximum allowable payment under your policy" be substituted, and be it further

Resolved, that the Missouri State Medical Association communicates with the Missouri Legislature, urging that the phrase "usual, customary, and reasonable" be replaced with the phrase "Maximum allowable payment under your policy" in all health insurance policies, and be it further

Resolved, that the Delegates from Missouri to the American Medical Association House of Delegates take a request for endorsement of the concept to the Annual Meeting of the American Medical Association.

(Resolution #7 was referred to the MSMA Council.)

Resolution #8 — Nursing Home Visitation

(Introduced by Morton A. Binder, M.D.,
Chairman of the Care for the Aging Committee,
St. Louis Metropolitan Medical Society)

Resolved, that regulations governing the visitation of patients in nursing homes by their physicians allow the physician to determine the frequency of visitations according to the need of the individual patient.

(A request to withdraw Resolution #8 was approved.)

Resolution #9 — Report on Public Relations Program

(Introduced by Greene County Medical Society)

Resolved, that a complete report of the activities of the public relations program of the Missouri State Medical Association be provided to MSMA members.

(Resolution #9 was adopted.)

Resolution #10 — Medical Care Under CHAMPUS

(Introduced by the MSMA Commission on Medical Economics,
Third Party Medicine and Governmental Relations)

Substitute Resolution #10

Resolved, that CHAMPUS be encouraged to abandon its ill-advised experiment with the non-physician health care providers because physician providers are available and are becoming more available, and be it further

Resolved, that CHAMPUS be informed that this experiment will result in less than optimum care, thus resulting in more health problems for its beneficiaries when there is no evidence of any savings of money and, in fact, some new studies show increased costs because of duplication of services.

(Substitute Resolution #10 was adopted.)

Resolution #11 — Caring for the Poor

(Introduced by Green County Medical Society)

Substitute Resolution #11

Resolved, that the Missouri State Medical Association, through its Council and Commissions, shall encourage all physicians in Missouri to share both the privileges and responsibilities that have been given to us by the state as they apply to medical care for the poor.

(Substitute Resolution #11 was adopted.)

Resolution #12 — Repeal of PSRO

(Introduced by Charles J. Ash, M.D., Springfield)

(Refer to Resolution #31 for action on Resolution #12.)

Resolution #13 — Repeal of Medicare

(Introduced by Charles J. Ash, M.D., Springfield)

Resolved, that the MSMA recommends repeal of Medicare.

(Resolution #13 was not adopted.)

Resolution #14 — Repeal of Medicaid

(Introduced by Charles J. Ash, M.D., Springfield)

Resolved, that the MSMA recommends repeal of the state Medicaid program, and be it further

Resolved, that the medical profession cares for the poor as we have done in the past — through charity and community effort.

(Resolution #14 was not adopted.)

Resolution #15 — AMA Membership

(Introduced by Charles J. Ash, M.D., Springfield)

Resolved, that all MSMA delegates, councilors and component society officers be urged to strongly solicit increased AMA membership.

(Resolution #15 was adopted.)

Resolution #16 — Repeal of PSROs

(Introduced by Grand River Medical Society)

(Refer to Resolution #31 for action on Resolution #16.)

Resolution #17 — Medical Society Interchange With Students and Professors

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association encourages its local medical societies to sponsor methods of interchange with pre-medical students and their advisors and professors so that a good understanding of the problems and joys of medicine can be appreciated.

(Resolution #17 was not adopted.)

Resolution #18 — Disaster Planning

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association initiates an nterchange with the State Disaster Planning and Operations Office o that proper preparations can be made for the medical care of the itizens of Missouri in case of a major catastrophe.

(Resolution #18 was adopted.)

Resolution #19 — Health Care Delivery to the Poor

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association, through its Council and Commissions, undertakes a study to determine the magnitude of the problem of health care delivery to the poor and an appropriate solution be recommended.

(Substitute Resolution #19 was adopted in lieu of he original Resolution #19 and Resolution #6.)

Resolution #20 — Promoting Medical/ Nursing Understanding

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association establishes cholarships for one male and one female nursing student each year ith the object of promoting better understanding between the medical and nursing professions and, thereby, ameliorate some of ur mutual problems.

(Resolution #20 was not adopted.)

Resolution #21 — Injuries to Institutionalized Patients

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association mounts a ampaign to educate its members as to the magnitude of the problem f accidental injuries to institutionalized patients, and be it further

Resolved, that through Council and commissions, the MSMA ncourages its members to provide a solution to this problem.

(Resolution #21 was not adopted.)

Resolution #22 — Funding of Medicaid

(Introduced by Greene County Medical Society)

Substitute Resolution #22

Resolved, that the Missouri State Medical Association uses all methods of influence to encourage the Missouri Legislature to fund he Medicaid Program adequately so that the poor of Missouri will be assured of better access to health care, and be it further

Resolved, that if sufficient funds are not available to maintain at ast the present poor level of payment for physicians' services under he Medicaid program, then the Missouri State Medical Association range with the Division of Family Services to expend all funds at he present fee scales. Following exhaustion of appropriated funds, Medicaid officials shall notify all recipients and the public that the ate is no longer paying the bills and the services recipients receive e being provided by the physicians with no remuneration, and be further

Resolved, that the MSMA determines the resulting amount by hich Missouri physicians are subsidizing the Medicaid Program nd other related information and publicize the facts and figures idely.

(Substitute Resolution #22 was adopted in lieu of he original Resolution #22 and Resolution #26.)

Resolution #23 — Membership Delinquency Rate

(Introduced by Greene County Medical Society)

Resolved, that the Missouri State Medical Association works with its component medical societies and the AMA to form a plan whereby the dues delinquency dates of members will be the same at all levels of the Medical Federation.

(Resolution #23 was not adopted.)

Resolution #24 — Physicians' Code of Ethics

(Introduced by Greene County Medical Society)

Resolved, that the physicians' code of ethics, which is recognized by authorities throughout the world as unique and one of the reasons why the medical profession has been admired universally, be reaffirmed publicly by our members, and be it further

Resolved, that the Missouri State Medical Association causes this code to be widely circulated both inside and outside the profession so that the public can understand our obligations.

(Resolution #24 was not adopted.)

Resolution #25 — Repeal of HSA Legislation

(Introduced by Charles J. Ash, M.D., Springfield)

Substitute Resolution #25

Resolved, that the Missouri State Medical Association supports legislation repealing the National Health Planning and Resources Development Act and subsequent amendments (PL 93-641 and PL 96-79), and be it further

Resolved, that the Missouri State Medical Association supports AMA efforts to develop principles for a program of voluntary locally-based health planning designed to address local and regional needs with local and regional resources as an alternative to PL 93-641 and PL 69-79.

(Substitute Resolution #25 was adopted.)

Resolution #26 — Medicaid Level of Payments

(Introduced by the MSMA Commission on Medical Economics, Third Party Medicine and Governmental Relations)

(Refer to Resolution #22 for action on Resolution #26.)

Resolution #27 — Local Problems, Local Action

(Introduced by Greene County Medical Society)

Substitute Resolution #27

Resolved, that the Missouri State Medical Association encourages local medical societies to engage in local political/governmental policy so that medical problems in the political/governmental area may be solved locally.

(Substitute Resolution #27 was adopted.)

Resolution #28 — Emergency Room Physicians

(Introduced by Greene County Medical Society)

Substitute Resolution #28

Resolved, that the Missouri State Medical Association institutes a program to encourage the interchange of physician dialogue and cooperation between emergency room physicians and physician members of the local medical society by actively recruiting more emergency room physicians to join the local medical society.

(Substitute Resolution #28 was adopted.)

Resolution #29 — Opposition to Expansion of Optometry

(Introduced by Greene County Medical Society)

Substitute Resolution #29

Resolved, that the 5,861 members of the Missouri State Medical Association each be prepared to contact his Senator and Representative in behalf of his patients and the rest of the people of Missouri in opposing this unnecessary and detrimental optometric legislation unless the bill is amended as has been indicated by the bill's Senate sponsor.

(Substitute Resolution #29 was adopted.)

Resolution #30 — Support for Mental Health Funding

(Introduced by Arnold S. Block, M.D. and R. R. Knowles, M.D., Councilors of the Eastern Missouri Psychiatric Society)

Substitute Resolution #30

Resolved, that the MSMA encourages the Governor of Missouri to continue adequate treatment programs for the seriously mentally ill, and be it further

Resolved that the physicians involved in the care of the mentally ill need to have input into the fiscal and policy-decision making where it pertains to treatment and care of these patients.

(Substitute Resolution #30 was adopted.)

Resolution #31 — PSRO Program

(Introduced by Frederick D. Peterson, M.D.)

Substitute Resolution #31

Resolved, that the MSMA supports the policy of the AMA as adopted at the December, 1980 Interim Session, which reads as follows:

> "The current Association policy shall be to continue professionally directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and is rendered in an appropriate setting at a reasonable cost and to encourage the elimination of all government directed peer review programs, including PSRO."

(Substitute Resolution #31 was adopted in lieu of Resolutions #12, #16 and #31.)

Resolution #32 — Location of Annual Session

(Introduced by Lake of the Ozarks Medical Society)

Resolved, that the MSMA House of Delegates strongly considers holding every third Annual Session of the House of Delegates at the Lake of the Ozarks.

(Resolution #32 was adopted.)

Resolution #33 — Induced Abortion Questionnaire

(Introduced by the MSMA Council)

Resolved, that the Division of Health obtains the spontaneous statistical information to determine total numbers of induced abortions by a questionnaire about same from the hospitals and clinics, and be it further

Resolved, that only total numbers of procedures, without personal identification, be obtained from such institutions.

(Resolution #33 was adopted.)

Resolution #34 — Professional Liability Legislation

Resolved, that the MSMA causes to be introduced into the 1982 Missouri General assembly a bill endorsing the concept that the prevailing party in professional liability actions be awarded reasonable attorney's fees and that prior to initiating such action, the attorney be required to inform his client of the provisions of this law.

(Resolution #34 was adopted.)

Resolution #35 — Chiropractic Policy

(Introduced by the MSMA Council)

Resolved, that the MSMA adopts current AMA policy regarding chiropractic. The new policy would read:

"The Missouri State Medical Association knows of no scientific evidence to support spinal manipulation and adjustment as appropriate treatment for human ailments such as essential hypertension, heart disease, stroke, cancer, diabetes and infections. Accordingly, the Association will continue to warn the public of the hazards of health in entrusting the diagnosis and treatment of such conditions to practitioners who rely on the theory that all disease is caused by misalignment of spinal vertebrae and can be cured by manual manipulation and adjustment of the spine.

"The Missouri State Medical Association reaffirms that a physician should at all times practice a method of healing founded on a scientific basis. A physician may refer a patient for diagnostic or therapeutic services to another physician, licensed limited practitioner, or any other provider of health care services permitted by law to furnish such services whenever the physician believes that this will benefit the patient. As in the case of referrals to physician specialists, referrals to limited practitioners should be based on their individual competence and ability to perform services needed by the patient.

"Similarly, the Missouri State Medical Association supports the right of every physician to choose those persons whom he or she will accept as patients and also to exercise his or her choice by the terms of contractural arrangements with other physicians, medical groups, hospitals or other institutions."

(Resolution #35 was adopted.)

Resolution #36 — Hospital Staffed Satellite Clinic

(Introduced by Lake of the Ozarks Medical Society)

Resolved, that the delegates of the MSMA House go on record in direct opposition to hospitals going into private practice of medicine by way of satellite clinics in outlying communities for the purpose o increasing the hospital's patient census.

(Resolution #36 was referred to the MSMA Council.)

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Tucker, George L., St. Louis
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Ulett, Pearl C., St. Louis
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Zink, Robert A., University City
Zografakis, George, St. Louis

Fourth Councilor District — 7

Carli, Alex, Washington
Del Pizzo, Ferdinand, Jr., St. Charles
Farrell, Sam L., Washington
Miles, Wayne B., Chesterfield
Richardson, William R., Union
Rother, Paul H., St. Charles
Sill, William F., St. Charles

Fifth Councilor District — 70

Akhter, Mohammad, Columbia
Allan, James E., Jefferson City
Allen, William C., Columbia
Alyea, J. O., Columbia
Anderson, Tom R., Columbia
Black, Samuel P. W., Columbia
Blackwell, C. W., Columbia
Bourgeois, Curtis, Columbia
Bradshaw, W. D., Columbia
Brown, Craig, Columbia
Brukardt, Diane, Columbia
Bumgarner, Roger W., Columbia
Byland, S. J., Wellsville
Cooper, Charles W., Jefferson City
Cunningham, Milamari, Columbia
Davis, Leonard, Mexico
Denninghoff, James, Columbia
Dunagin, William A., Columbia
Durst, Henry, Fulton
Ekern, H. Peter, Mexico
Exon, C. S., Jefferson City
Foote, Jerry E., Columbia
Fotopoulos, C. K., Osage Beach
Fuchs, George J., Columbia
Garcia, C. L., Mexico
Garrotto, Lewis J., Columbia
Gordon, James S., Jefferson City
Gunn, Victoria, Jefferson City
Hall, C. Robert, Versailles
Haw, Marvin T., Columbia
Herland, Alexander L., Jefferson City
Huq, Nasrul, Mexico
Hurst, Daniel, Columbia
Ide, Carl H., Columbia
Jackson, Vernon B., Fulton
Jolly, Ben N., Mexico
Jones, Robert S., Columbia
Lampton, Larry, Columbia
Leeper, Claude K., Columbia
Lobeck, Charles, Columbia
Lucas, Luke W., Columbia
Matthews, John I., Jefferson City
Millikan, Larry E., Columbia
Mitchell, Frank L., Columbia
Moon, Agnes, Columbia
Montie, Joseph, Columbia
Moranville, B. A., Columbia
Moseley, Otis, Osage Beach
Ossman, J. A., Jefferson City
Peterson, Charles R., Columbia
Pickens, James M., Columbia
Ritterbusch, James K., Fulton
Rodes, Ned D., Columbia
Ross, Gilbert, Jr., Columbia
Russell, Garth S., Columbia
Ryan, Thomas J., Jefferson City
Schokker, J., Jefferson City
Stauffer, Harry B., Jefferson City
Stauffer, Larry, Jefferson City
Stephenson, Hugh E., Columbia
Stewart, W. B., Columbia
Stoy, Robert P., Columbia
Stuart, Byron M., Boonville
Summers, Joseph S., Jr., Jefferson City
Thomas, Horace E., Columbia
Thomas, Robert M., Columbia
Washburn, J. Loren, Versailles
Weiss, James J., Jefferson City
Wilbers, Raymond H., Mexico
Wilson, George P., Columbia

Sixth Councilor District — 17

Campbell, Albert J., Sedalia
Folkner, A. L., Warrensburg
Haynie, William W., Butler
Hansen, Arthur L., Butler
Kelling, Jordan, Waverly
Knipschild, B. F., Marshall
Lawrence, John R., Arrow Rock
Maxson, T. Reed, Warrensburg
McCorkle, E. Lee, Marshall
Meyer, Jerry L., Concordia
Moore, Candice A., Nevada
Moore, M. Ted, Nevada
Pavlu, Robert R., Carrollton
Riley, Charles T., Richmond
Torontow, R. John, Nevada
Wheeler, Robert L., Harrisonville
Wray, R. B., Nevada

Seventh Councilor District — 68

Aldridge, John, Lee's Summit
Ashby, Jennifer, Kansas City
Barelli, Pat A., Kansas City
Barr, Glenn, Kansas City
Brewer, Joseph, Kansas City
Buchanan, Barbara, Kansas City
Buchwach, Kenneth A., Kansas City
Calovich, Emery R., Kansas City
Clark, I. H., Grandview
Curts, Calvin J., Kansas City
Davidson, Ken C., Kansas City
Dorzab, Bill, Kansas City
Evans, Lawrence L., Kansas City
Fairchild, Robert C., Kansas City
Fitzgerald, Robert H., Overland Park, Kan.
Flynn, James M., Kansas City
Goheen, John R., Kansas City
Goolsbee, Robert, Kansas City
Gura, G. M., Mission Hills, Kan.
Hahn, Fred W., Jr., Kansas City
Hardy, J. W., Kansas City
Herman, Edwin M., Kansas City
Hickerson, William H., Independence
Hopkins, James P., Kansas City
Hunkeler, John D., Kansas City
Hutson, Bruce, Kansas City
Kelly, Charles R., Kansas City
Kerr, H. Harper, Kansas City
Kyger, John E., Independence
Lee, King Y., Kansas City
Leibsohn, Joel, Independence
MacGee, Edwin, Kansas City
Mason, Wayne, Kansas City
McCallister, Ben D., Kansas City
McCanse, Andrew, Kansas City
McIntosh, Don, Kansas City
Medlicott, William J., Kansas City
Michelson, Richard, Kansas City
Miller, Gerald L., Jr., Kansas City
Noback, R. K., Kansas City
Novak, Edward J., Leawood, Kan.
O'Malley, James F., Kansas City
Phillips, Thomas P., Kansas City
Piepergerdes, L. G., Lake Winnebago
Pinkerton, Joe A., Kansas City
Porter, Michael J., Shawnee Mission, Kan.
Raich, Robert A., Kansas City
Rau, Jerold M., Kansas City
Reister, Dorothy D., Shawnee Mission, Kan.
Robinett, Wade V., Kansas City
Sabates, Felix, N., Kansas City
Schottman, G. W., Kansas City
Siegel, Charles, Kansas City
Slickman R. A., Kansas City
Spalding, Wilber B., Jr., Kansas City
Stacey, W. R., Independence
Throne, E. M., Kansas City
Valentine, John D., Roeland Park, Kan.
Volk, G. E., Leawood, Kan.
Weiford, Edward C., Kansas City
Wheeler, Charles B., Kansas City
Wilkinson, Charles B., Kansas City
Winkelman, Esther, Kansas City
Youll, Donald V., Kansas City
Youmans, Ronald A., Kansas City
Young, James E., Kansas City
Ziemianski, Matthew C., Kansas City
Zoller, David D., Kansas City

Eighth Councilor District — 46

Benson, Ronald G., Springfield
Bonebrake, M. D., Springfield
Brown, Jim, Springfield
Burkey, Jordon W., Springfield
Christianson, Charles S., Mt. Vernon
Clary, William F., Springfield
Corry, F. M., Springfield
Domann, Darrel D., Springfield
Esparrago, F. R., Monett
Ferguson, John P., Springfield
Gaston, Sam L., Joplin
German, Walter A., Springfield
Glover, Kenneth, Mt. Vernon
Griffin, Evelyn, Buffalo
Griffin, O. A., Buffalo
Grim, Edward M., Joplin
Hagen, Michael, Aurora
Hall, David W., Rogersville
H'Doubler, Peter B., Springfield
Huewe, Douglas A., Springfield
Ivy, H. B., Springfield
Jobe, Charles L., Springfield
Johnson, Warford B., II, Springfield
Kenney, Roy E., Neosho
LeFevre, Philip J., Springfield
Lockhart, Charles E., Springfield
Macdonnell, Thomas M., Marshfield
McAlhany, Howard, Springfield
Menchetti, Don, Springfield
Merideth, Mary, Cassville
Moore, DeArmond, Springfield
Olive, G. C., Neosho
Pearman, Carl C., Joplin
Peterson, Stanley S., Springfield
Piker, K. Dewayne, Springfield
Quinn, Paul S., Springfield
Rios, Ruth, Bolivar
Sauer, Paul E., Springfield
Schwartz, E. J., Springfield
Shane, Ramon A., Springfield
Simpson, Emerson L., Springfield
Singleton, Marvin, Joplin
Sullivan, Dan T., Springfield
Tombridge, T. L., Springfield
Whitlock, C. C., Springfield
Willcoxon, Robert L., Joplin

Ninth Councilor District — 14

Bartlett, Hugh, Rolla
Bhati, Deo K., Salem
Fowler, Marvin L., West Plains
Grannemann, H. Neal, Rolla
Hasek, O. Martin, Mt. Grove
Marti, Larry B., Rolla
Mayuga, Larry, Cabool
Paskon, Seth, Salem
Preston, Bruce, West Plains
Smith, C. Franklin, Willow Springs
Spears, Joe L., Cabool
Stricker, E. A., St. James
Tang, T. C., Salem
Wiles, Jack N., West Plains

Tenth Councilor District — 36

Albano, Maria Candida, Crystal City
Allbee, R. H., Crystal City
Appleberry, C. H., Flat River
Brewer, Nelson S., Cape Girardeau
Canlas, E. M., Poplar Bluff
Chapman, Jean A., Cape Girardeau
Cozean, Charles, Cape Girardeau
Deles, Vicente D., Crystal City
Dettmer, Robert F., Ironton
Engelhardt, Robert C., Poplar Bluff
Farmer, Norma D., Farmington
Fischer, Theodore, Altenburg
Gray, Walter C., Farmington
Hansbrough, E. T., Poplar Bluff

eb, Max A., Sikeston
lcomb, John K., Cape Girardeau
ckstep, Robert A., Farmington
g, C. H., Cape Girardeau
g, J. Marshall, Cape Girardeau
sten, Melvin C., Cape Girardeau
n, Chul, Poplar Bluff
dyman, George, Poplar Bluff
npiphiphatn, D., Perryville
skowski, Maria, Cape Girardeau
sters, Ed, Sikeston
Ginty, Charles P., Cape Girardeau
Rapp, Harold B., Cape Girardeau
Ridings, G. R., Cape Girardeau
Ritter, Raymond A., Cape Girardeau
Rodriguez, Gregorio, Charleston
Ruff, T. E., Poplar Bluff
Rutledge, John F., Festus
Sargent, John P., Sikeston
Till, Bennie N., Poplar Bluff
Turner, Kirby L., Poplar Bluff
Umali-Sessoms, Nora U., Crystal City

University of Missouri-Columbia

Student Medical Society — 4

wns, Marc, Columbia
nsbrough, Eugene C., Columbia
Harwood, Timothy, Columbia
Webb, Kim, Columbia

St. Louis University

Student Medical Society — 6

ning, Daniel L., St. Louis
se, Paul M., Clayton
nkiewicz, Bruce V., St. Louis
Lutri, T., St. Louis
Sauvage, Lester, St. Louis
Sciortino, William J., St. Louis

Washington University

Student Medical Society — 5

xander, Kimberley, St. Louis
ld, Dianne, St. Louis
htmann, Laura, St. Louis
Hansbrough, J. R., Nashville, Tenn.
Kamson, Solomon, St. Louis

Guest Physicians — 58

Anderson, Joseph R., St. Louis
Azu, Charles C., St. Louis
Baquet, Claudia R., St. Louis
Bannon, Anne E., St. Louis
Benson, Marilyn, Liberty
Berglund, Thomas R., Portage, Mich.
Berman, Howard J., St. Louis
Bhatt, Dushyant, St. Louis
Boyle, Joseph, Los Angeles, Calif.
Campbell, Robert J., New York, N.Y.
Carron, Harold, Charlottesville, Va.
Chakrobortty, Maitrayee, St. Louis
Cohen, Harry, Miami, Fla.
Davis, James O., Columbia
Deckler, Donald J., St. Louis
Farer, Laurence S., Atlanta, Ga.
Gast, Michael, St. Louis
Goldstein, Bernard, St. Louis
Gondipalli, N. R., St. Louis
Green, Thomas, St. Louis
Hall, Russell P., III, Bethesda, Md.
Hans, Oswaldo, St. Louis
Herberman, Ronald B., Bethesda, Md.
Holloway, Robert B., University City
Hughes, Sam, San Francisco, Calif.
Jaffe, Allan S., St. Louis
Keenan, William J., St. Louis
Koenig, A. S., Fort Smith, Ark.
Larsh, Howard W., Mt. Vernon
Liang, Howard, St. Louis
Lilly, John, II, Ft. Leonard Wood
Morgan, Tom, St. Louis
Myers, Eugene N., Pittsburgh, Pa.
Pamaong, Arturo J., Creve Coeur
Pardo, Lillian G., Kansas City, Kan.
Perez, Jeannie O., St. Louis
Platt, Daniel W., Alton, Ill.
Rao, Sunkara N., St. Louis
Reddy, Vinodini, V., St. Louis
Rogers, R. S., III, Rochester, Minn.
Sagel, Stuart, St. Louis
Saripalli, Girija Kumari, Creve Coeur
Schachar, Ronald A., Denison, Tex.
Schoemaker, Enrique, St. Louis
Segal, Robert J., Quincy, Ill.
Shraberg, David, New Orleans, La.
Sladen, Arnold, Pittsburgh, Pa.
Smith, Randall D., Columbia
Stillwell, G. K., Rochester, Minn.
Subbaiah, Kosuri V., St. Louis
Subramanian, S., Mt. Vernon
Tanaka, Takao, St. Louis
Tinker, John H., Rochester, Minn.
Tonkens, S. W., Kansas City
Tuteur, Peter G., St. Louis
Twersky, Arthur B., Creve Coeur
Wagner, W. J., Grand Island, Neb.
Worth, Eugene R., Columbia

There were 652 members, 58 guest physicians, 132 exhibitors, 100 MSMA Auxiliary members, 56 guests and 20 staff members. Total registration was 1,018.

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In Memoriam

Whereas, *there have been 63 deaths among members since the 1980 Annual Session, and*

Whereas, *each of these members is missed as an individual as well as for his or her contributions to the practice of medicine and to the Missouri State Medical Association, and*

Whereas, *the loss of each member is felt by all members, as well as loved ones and close associates and the patients he has served with dedication, and*

Whereas, *condolences in the form of the Memoriam Perpetuam have been sent to the immediate family of each deceased member, therefore be it*

Resolved, *that the House of Delegates now pays personal tribute by standing for a moment of silence in memory of each of the 63 members we have lost and whose names will be recorded in the minutes of this Annual Session.*

Lanning, Richard J., Kansas City
Kneibert, Fred L., Poplar Bluff
Rosenstein, Daniel L., Sikeston
White, William H., Clayton
Collins, John M., St. Louis
Dodge, Mark, Shawnee Mission, Kan.
Withers, Orvall R., Lee's Summit
Rao, A. R., Fredericktown
Green, Manuel E., Creve Coeur
McSwiney, John G., Ferguson
Boger, James W., Sedalia
Hofling, Charles K., St. Louis
Russell, Joseph P., Jefferson City
Coffin, Theodore A., Mission Hills, Kan.
Hill, James E., Fulton
Hall, Thomas B., Lee's Summit
Printz, Otto J., Kansas City
Simon, Jerome I., St. Louis
Musgrave, David E., Excelsior Springs
Tan, Charles H., St. Louis
Fuson, William A., Caledonia, Miss.
Cheek, J. William, Springfield
Paddock, Charles S., Joplin
Rannie, Paul R., Independence
Pfeifer, Oliver C., St. Louis
Richman, Elmer, Chesterfield
Keeler, James E., Kansas City
Gempel, Paul A., Flossmoor, Ill.
Wise, Gordon F., Springfield
Newton, William T., St. Louis
Meinershagen, Charles W., Jefferson City
Lamar, Robert F., Kansas City
Max, Paul F., Clayton
Bergmann, Victor H., Shawnee Mission, Kan.
Hollweg, Kenneth C., Kansas City
Williams, Frank R., Kansas City
Diveley, Rex L., Kansas City
Baumgarten, Walter, St. Louis
Thym, Henry P., Ballwin
Handler, Eric, St. Joseph
Spinzig, Edgar W., Kirkwood
Stewart, Robert H., Sedalia
Dwyer, Hugh L., Shawnee Mission, Kan.
Aronson, Abraham, St. Louis
Miller, Norman C., St. Louis
Tarson, Solomon, Shawnee Mission, Kan.
Elson, Julius, Creve Coeur
Minton, Robert S., St. Joseph
Bassman, Roland S., St. Louis
Saunders, John A., Rolla
Spitz, Milton A., Moss Beach, Calif.
Bremser, Harry L., St. Louis
Boedeker, Roy V., St. Louis
Ferro, Anthony L., Creve Coeur
Mezera, Raymond A., St. Louis
Elrod, Dennis B., Cape Girardeau
Thomas, Helen Y., Columbia
Mangels, Kenneth A., Independence
Smith, Carlie S., Springfield
Chakrobortty, Hirendra, St. Louis
Hankin, Norman M., St. Louis
Terrell, Bernard J., Mt. Vernon
Walton, Franklin E., St. Louis

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Missouri State Medical Foundation

nnual Meeting
hase-Park Plaza Hotel, St. Louis
riday, April 10, 1981

The Annual Meeting of the Missouri State Medical Foun- ation was called to order by Dr. Max Franklin, president.

The minutes of the 1980 Annual Meeting, the activities port for the MSMF for 1980-1981 and the auditor's report ere approved as published in Missouri Medicine.

Dr. Mary Case, chairman, presented the following report the Nominating Committee in regard to the Board of ustees. Dr. Albert D. Cross, Trenton, was reelected to rve another five-year term and Dr. John P. Sargent, Sikes- n, was elected to a five-year term. Dr. Frederick W. Hahn, nsas City, was elected to complete the term of the late enneth C. Hollweg, M.D. The ex-officio member of the ard will be Dr. Eugene T. Hansbrough, president of the SMA.

It was agreed by those present that the MSMF Constitu- n and Bylaws should be revised. Dr. Franklin appointed r. Marvin A. Singleton, Joplin, as chairman of the Ad Hoc mmittee to Revise the Constitution and Bylaws. Suggestions were made in regard to the revision.

The meeting was adjourned.

Board of Trustees
Chase-Park Plaza, St. Louis
Friday, April 10, 1981

The meeting of the Board of Trustees of the Missouri State Medical Foundation was called to order by Dr. Max S. Franklin, president.

On behalf of the Nominating Committee, Mary Case, M.D., chairman, presented the following slate of officers for one-year terms.

President — Max S. Franklin, M.D., St. Louis
Vice-President — Miles C. Whitener, M.D., St. Louis County
Secretary-Treasurer — Robert H. Tanner, M.D., Jefferson City
Assistant Secretary — Ron Ellison, MSMA Staff

The above members were elected by acclamation.

The meeting was adjourned.

123rd ANNUAL SESSION EXHIBITORS

W. Alban Company, Inc., St. Louis
lergy & Immuno Diagnostics, Ltd., Kansas City
nerican Professional Practice Association, St. Louis
my Medical Department Personnel Procurement Agency, St. Louis
omedical Reference Laboratories, Burlington, N.C.
ue Shield-St. Louis and Kansas City, St. Louis
l-Type, Inc., Columbia
ata Service Agency, Inc., Maryland Heights
ncyclopaedia Britannica, Inc., Chicago, Ill.
rrest T. Jones & Company, Inc., Kansas City
ed S. James & Company of Missouri, Inc., Kansas City
laxo, Inc., Ft. Lauderdale, Fla.
yland Center/St. Anthony's Medical Center, St. Louis
ternational Clinical Laboratories, Inc., St. Louis
ternational Medical Electronics, Ltd., Kansas City
vestment Management and Research, St. Louis
e Key Company, St. Louis
axey Medical, Inc., Hazelwood
edic Alert, Inc., St. Louis
edical Defense Associates, Ltd., Springfield
e Medical Protective Company, Fort Wayne, Ind.
edicomp Systems, Inc., Wichita, Kan.
etPath, Inc., Des Plaines, Ill.
Missouri Medical Insurance Company, St. Louis
Organon Pharmaceuticals, West Orange, N.J.
Proctor & Gamble, Miami Valley Laboratories, Cincinnati, Ohio
Roche Laboratories, Inc., Nutley, N.J.
William H. Rorer, Inc., Fort Washington, Pa.
Rowell Laboratories, Inc., Baudette, Minn.
R. Rowland & Company, Inc., St. Louis
Schering Corporation, Chesterfield
Searle Laboratories, Chicago, Ill.
Seiler Instrument & Manufacturing Company, St. Louis
Shasta General Systems, St. Louis
Smith Kline Clinical Labs., Inc., Creve Coeur
Smith Kline & French Laboratories, Philadelphia, Pa.
Social Security Administration Disability Programs Branch, Kansas City
Southern Medical Association, Birmingham, Ala.
Stuart Pharmaceuticals, Wilmington, Del.
Syntex Laboratories, Inc., Palo Alto, Calif.
Tele-Research, Inc., Southern Medical Association, Pensacola, Fla.
U.S. Air Force, Creve Coeur
Wallace Laboratories, Cranbury, N.J.
Williams & Wilkins, Chesterfield

In lieu of exhibits, the following firms made cash donations to assist in the sponsorship of Scientific Sessions:

Bristol Laboratories, Syracuse, N.Y.
Eli Lilly and Company, Indianapolis, Ind.
Mead Johnson Nutritional Division, Evansville, Ind.
Merck Sharp & Dohme, West Point, Pa.
Parke-Davis, Morris Plains, N.J.

In Memoriam

Max Fitch, M.D., Rt. #1, Box 285, Brighton 65617; graduate of St. Louis University, 1929; member of Greene County Medical Society; aged 76; died April 9, 1981.

George Q. Dunmire, M.D., 504 S. Baker, Kennett 63857; graduate of University of Tennessee, 1940; member of Dunklin County Medical Society; aged 66; died May 9, 1981.

George Gaylord Robinson, M.D., Villa Ventura, Apt. 306, 12100 Warnall Rd., Kansas City 64141; graduate of University of Kansas, 1933; member of Dallas-Hickory-Polk-Dade County Medical Society; aged 78, died May 11, 1981.

John P. Altheide, M.D., 4605 Lindell Blvd., St. Louis 63108; graduate of St. Louis University, 1922; member of St. Louis Metropolitan Medical Society; aged 87; died May 16, 1981.

John Carroll Murphy, M.D., 141 N. Meramec Ave., Clayton 63105; graduate of St. Louis University, 1939; member of St. Louis Metropolitan Medical Society; aged 65, died May 18, 1981.

Henry J. Harrell, M.D., Rt. 1, Box 535, Sur merfield, Fla. 32691; graduate of Washingt University, 1906; member of Dallas-Hickor Polk-Dade County Medical Society, aged 9 died May 20, 1981.

Dee William Eades, M.D., 6 Kingsbury, S Louis 63111; graduate of University of Oklahom 1930; member of St. Louis Metropolitan Medic Society; aged 74; died May 20, 1981.

Saul Dworkin, M.D., 4632 S. Grand, St. Lou 63111; graduate of Washington University, 193 member of St. Louis Metropolitan Medic Society; aged 71; died May 20, 1981.

Authur H. Stein, Jr., M.D., 4989 Barnes Ho pital Plaza, St. Louis 63110; graduate of Washin ton University, 1948; member of St. Louis Metr politan Medical Society; aged 56; died May 1 1981.

Oscar H. Damron, M.D., 308 Jones St., Wa rensburg 64093; graduate of St. Louis Universit 1929; member of Johnson County Medical Soci ty; aged 78; died May 29, 1981.

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ew Members

Leslie Martin Brandwin, M.D., 4910 Forest ırk, St. Louis 63108, has become a member of . Louis Metropolitan Medical Society. Dr. randwin is a native of New York City, received s preliminary education at City College of New ork and his M.D. degree at St. Louis University 1971. He specializes in internal medicine.

Robert C. Geekie, III, M.D., 615 S. New Bal- Rd., St. Louis 63141, has become a member of . Louis Metropolitan Medical Society. Dr. eekie is a native of St. Louis, received his pre- minary education at St. Mary's University and M.D. degree at the University of Missouri- lumbia in 1958. He specializes in internal edicine.

M. Robert Hill, M.D., 6150 Oakland Ave., St. uis 63139, has become a member of St. Louis etropolitan Medical Society. Dr. Hill received preliminary education at St. Louis University d his M.D. degree at the University of Illinois 1972. He specializes in internal medicine.

Izak H. Kielmovitch, M.D., 1146 Olive Village ., St. Louis 63132, has become a member of St. uis Metropolitan Medical Society. Dr. Kielmo- ch is a native of Lodz, Poland, received his eliminary education at Hebrew University and M.D. degree at the University of Florence in 79. He specializes in otolaryngology.

James Waldon Knight, M.D., 2715 Union vd., St. Louis 634113, has become a member of Louis Metropolitan Medical Society. Dr. ight is a native of Newville, Ala., received his eliminary education at Alabama A & M Uni- rsity and his M.D. degree at St. Louis Uni- rsity in 1975. He specializes in general surgery.

Sidney David Machefsky, M.D., 510 S. Kings- hway, St. Louis 63110, has become a member St. Louis Metropolitan Medical Society. Dr. chefsky is a native of Memphis, Tenn., re- ved his preliminary education at Cornell Uni- rsity and his M.D. degree at Vanderbilt Uni- rsity in 1977. He specializes in radiology.

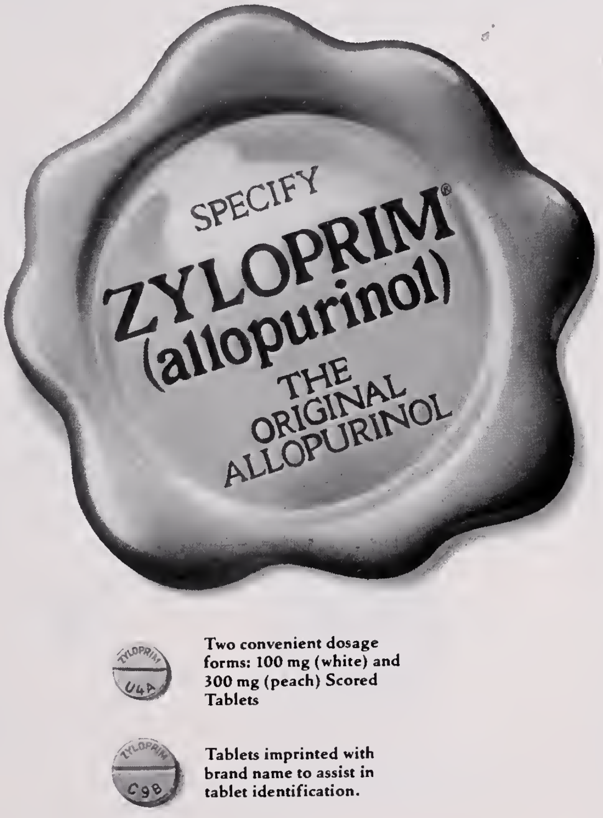
Vishwanath Shivappa Madinur, M.D., 5400 senal, St. Louis State Hospital, St. Louis 39, has become a member of St. Louis Metro- itan Medical Society. Dr. Madinur is a native India, received his preliminary education at natak College Dharwar and his M.D. degree at the University of Bombay in 1955. He specializes in family practice.

Frank Richard Mohs, M.D., 12303 DePaul Dr., Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Mohs is a native of Webster, S.D., received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1953. He specializes in internal medicine.

Thomas B. Moore, M.D., #25 Doctor's Park, Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Moore is a native of Jackson, Miss., received his preliminary education at Southwestern at Memphis and his M.D. degree at Mississippi University in 1972. He specializes in cardiovascular diseases.

Edward Stanley Nemec, M.D., 3655 Vista, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Nemec is a native of St. Louis, received his preliminary education at St. Louis University and his M.D.

(Continued on next page)



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degree at St. Louis University in 1973. He specializes in radiology.

Bruce Howard Redler, M.D., 12175-B Vivacite, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Redler is a native of Washington, D.C., received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1978. He specializes in ophthalmology.

Georgia Ann Shackelford, M.D., 1221 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. D Shackelford is a native of St. Louis, received h preliminary education at St. Louis University an her M.D. degree at St. Louis University in 197 She specializes in psychiatry.

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James Bowen Stiehl, M.D., 12255 DePa Dr., Bridgeton 63044, has become a member St. Louis Metropolitan Medical Society. D Stiehl is a native of Urbana, Ill., received h preliminary education at Millikin University an his M.D. degree at the University of Illinois i 1975. He specializes in orthopedic surgery.

Washington University

Carl F. Bigler
Paul Crowe
Steven K. DeWitt
Gerard F. Droege
Laura B. Greene
Robert D. Herr
Kenneth B. Horwitz
Michael Kastan
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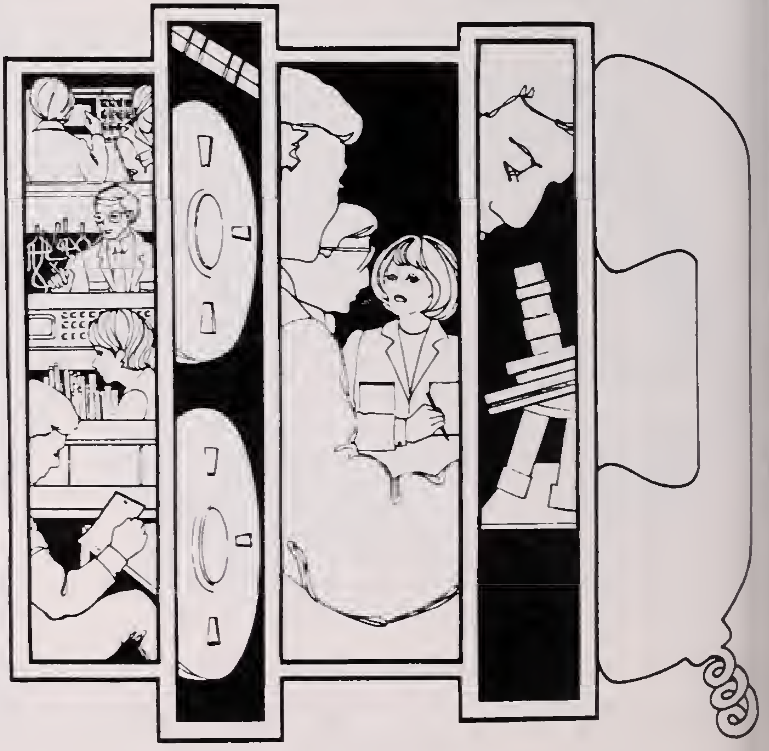

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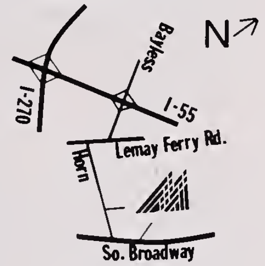

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Missouri Medicine

Vol. 78, No. 8 (ISSN 0026-6620) August, 1981

SPECIAL REVIEW ARTICLE

•

Selected Topics in Pediatric Surgery

Current Concepts
of
Diagnosis and
Management

An Approach to Patients With Recent Onset of Arthritis

Part II

Camping for Diabetic Children

A Tribute to Leo H. Pollock, M.D.

Author of
"Missouri Medicine In
Review"

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MSMA

NEWS ROUND - UP

August, 1981

MSMA sponsors communications workshop

To encourage physician involvement in radio and elevision talk shows and interviews, the Missouri State Medical Association is holding a communications trainng seminar, Saturday, November 7, 1981 in Columbia.

The workshop is being sponsored by the MSMA Commission on Public Affairs and will be held at the Hilton nn from 9:30 a.m. to 12:30 p.m. Following the workshop, there will be a meeting of the component ociety officers.

The workshop will include actual interview exerience on both radio and television. All MSMA memers and MSMA Auxiliary members are invited to atend this important seminar.

Representatives of the Burroughs Wellcome Comany will conduct the seminar. As a service to the medial profession, Burroughs Wellcome is currently workng with the MSMA to arrange interviews with physiians on radio and television talks shows in Boone, ape Girardeau, Cole, Greene, Jasper and St. Louis ounties. For any physician interested in participating n this program as it expands into other areas in Missouri, this seminar offers invaluable experience.

Allan R. MacKinnon, the Burroughs Wellcome Comany representative, has worked with the American College of Physicians and many state medical associtions. He has extensive experience on radio and televiion and will do much of the interview training at the seminar.

Any member who would like to attend this communications training seminar or who would like more nformation is urged to fill out the accompanying box nd send it to the MSMA, P.O. Box 1028, Jefferson City, MO 65102. There will be a small registration fee to cover lunch.

Subcommittee reviews second opinion program for Medicaid

Several recommendations concerning the establishment of a mandatory Second Surgical Opinion Program within the Missouri Title XIX Medicaid program were voted upon at a recent meeting of the Missouri Medical Advisory Physician Subcommittee. The committee is composed of M.D.'s and D.O.'s and makes recommendations to the Department of Social Services and the full Medical Advisory Committee.

As passed in House Bill 901, the Missouri statute now requires that medical assistance payments for surgery, and any costs directly related to such surgery, shall be made only when a second medical opinion by a licensed physician as to the need for surgery has been obtained before the surgery is performed.

Eight surgical procedures have been selected by Missouri Medicaid for initial inclusion in the second opinion program: cataract removal, dilation and curettage (non-obstetrical), cholecystectomy, hemorrhoidectomy, hernia repair, hysterectomy, laminectomy/laminotomy and tonsillectomy and/or adenoidectomy. These procedures were selected after consideration of such factors as the significance of non-confirming second opinions, the frequency of the specific procedure and the anticipated cost savings. This list may be revised at a future date.

The following recommendations for the program were made by the sub-committee:

- The requirement that physicians rendering the second opinion do not have financial or family interest in the same professional group, partnership or corporation as the physician who rendered the first opinion should be deleted. Also, the requirement that neither the second or third opinion physician can perform the operation should be removed.
- The institution of the program should be delayed until the physician subcommittee and the Medical

(continued on next page)

I am interested in attending the Communications Training Seminar, Saturday, November 7, 1981 at the Hilton Inn in Columbia.

name ____________________

address ____________________

city ____________________

Medicaid (continued)

Advisory Committee have had sufficient time to review and discuss the program.

- The second opinion program is an ill conceived plan that, in the long run, will not result in the results desired by the Department of Social Services.

The sub-committee also made several recommendations concerning the Medicaid program:

- An emergency room fee as well as an office visit fee be paid for visits to a physician's office during non-working hours.
- The drug restrictions recently instituted by the department should be tabled until further studied by the sub-committee.
- Outpatient hospitals, free standing outpatient surgical centers and surgical centers in physician offices should be paid the same fees.

The Full Medical Advisory Committee, consisting of physicians, other health care providers, Title XIX Medicaid recipients, members of the General Assembly and the Director of the Division of Health, also met recently. The committee heard testimony on the merits of requiring co-payment for emergency room services. At the request of pediatricians, the committee instructed the Department of Social Services to investigate new procedures for filing newborn claims. A new fee schedule for injections was presented to the committee for review by committee members.

Current Procedural Technology update available

More than 60 revisions are included in the sixth update to the fourth edition of Current Procedural Terminology, the AMA's comprehensive system for naming, coding and reporting medical procedures and services.

The update will be sent this month to users of CPT-4 who have completed and returned the prepaid card included in the book.

Future updates of CPT will require a service charge to cover increased printing, labor and mailing costs. The service charge for the seventh update will be $5.

CPT-4 and updates are available through the AMA Order Dept., OP-041, P.O. Box 821, Monroe, WI 53566. Single copies of CPT-4 are $19.95, plus $2 for postage and handling (fourth class) or $3 for delivery via UPS.

MSMA sends mailing urging MMPAC membership

In August, all MSMA members who are not also members of the Missouri Medical Political Action Committee received a letter urging them to join MMPAC.

At the recent annual meeting, the MMPAC Board of Directors voted to recommend that all MSMA Delegates and component society officers become sustaining members of MMPAC. However, MMPAC membership is open to all MSMA members and their spouses.

If you are not already a member of MMPAC, send in your $100 Sustaining membership or $40 regular membership today. Mail it to MMPAC, P.O. Box 1402, Jefferson City, MO 65102.

PR Update

In response to a resolution passed at the 1981 Annual Session, PR Update was developed to report on the MSMA public relations programs. As a monthly column in the MSMA News-Roundup, PR Update will focus on a current MSMA public relations program each month. This month, PR Update will cover YOUR HEALTH.

YOUR HEALTH is a health information newsletter designed for the general public. It is mailed twice a year to all members and is intended to be placed in physician's waiting rooms for patients to read.

YOUR HEALTH contains articles on a variety of topics relating to health and safety. Some of the topics covered in previous issues include rabies, poisoning, sunburn, toxic shock syndrome, winter health hazards and high blood pressure. Any suggestions or topics for future issues may be sent to the MSMA Headquarters.

State Board sets new licensure fees

The recent passage of Senate Bill 16 by the Missouri General Assembly authorized the State Board of Registration for the Healing Arts to set the licensure fees charged by the Board.

The new fees are estimated to generate an income of $1,102,540 a year. The current fees bring in approximately $400,000 yearly. Several of the fees and their increases as set by the Board follow.

	Current Fee	**New Fee**
Examination Fee	$ 50.00	250.00
Renewal of Certificate of Registration Fee	10.00	50.00
Fee for Licensing by Reciprocity	100.00	250.00
Fee for Receiving National Board of Examiners Certificate	50.00	250.00
Delinquent Fee		25.00

An estimated 15,118 physicians and 5,347 osteopathic physicians will be affected in fiscal year 1983 — the first full year of implementation.

State Chest Hospital extends services

Barrett Toan, director of the Missouri Department of Social Services, recently announced the extension of services provided by the Missouri State Chest Hospital to persons residing outside the state of Missouri.

The hospital, located in Mount Vernon, provides inhospital care and rehabilitation programs for chronic obstructive pulmonary disease, emphysema, bronchitis, asthma, tuberculosis, fungus disease and allergies. Outpatient services are also available.

An agency of the state of Missouri, the chest hospital is partially supported by tax funds. Residents of other states may take advantage of the hospital's services but must pay full cost for their care.

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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion In about half of these reports the malformation was deafness related to auditory nerve hypoplasia Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice rats, dogs, and monkeys Quinamm is contraindicated in women who are or may become pregnant If this drug is used during pregnancy or if the patient becomes pregnant while taking this drug the patient should be apprised of the potential hazard to the fetus

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use Recovery usually occurs following withdrawal of the medication and appropriate therapy

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism Such symptoms, in the mildest form, include ringing in the ears, headache, nausea and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine Quinamm should be stopped immediately if evidence of hemolysis appears

If symptoms occur, drug should be discontinued and supportive measures instituted In case of overdosage, see OVERDOSAGE section of prescribing information

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity particularly if only small doses of quinine have been taken Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine (See Drug Interactions)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants

The effects of neuromuscular blocking agents (particularly pancuronium succinylcholine, and tubocurarine) may be potentiated with quinine, and result in respiratory difficulties

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used

Carcinogenesis, Mutagenesis Impairment of Fertility

A study of quinine sulfate administered in drinking water (0 1%) to rats for periods up to 20 months showed no evidence of neoplastic changes

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test Intraperitoneal injections (0 5 mM kg) were given twice, 24 hours apart Direct *Salmonella typhimurium* tests were negative, when mammalian liver hemogenate was added, positive results were found

No information relating to the effect of quinine upon fertility in animal or in man has been found

Pregnancy

Category X See CONTRAINDICATIONS

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown Quinine in toxic amounts has been associated with abortion Whether this action is always due to direct effect on the uterus is questionable

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts)

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (Individual or multiple symptoms may represent cinchonism or hypersensitivity)

Hematologic acute hemolysis thrombocytopenic purpura agranulocytosis hypoprothrombinemia

CNS visual disturbances including blurred vision with scotomata photophobia diplopia diminished visual fields and disturbed color vision tinnitus, deafness and vertigo headache nausea vomiting fever apprehension restlessness confusion, and syncope

Dermatologic allergic cutaneous rashes (urticarial, the most frequent type of allergic reaction papular, or scarlatinal) pruritus flushing of the skin sweating occasional edema of the face

Respiratory asthmatic symptoms

Cardiovascular anginal symptoms

Gastrointestinal nausea and vomiting (may be CNS-related) epigastric pain

DRUG ABUSE AND DEPENDENCE

Tolerance abuse or dependence with Quinamm has not been reported

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose

DOSAGE AND ADMINISTRATION

1 tablet upon retiring If needed 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring

After several consecutive nights in which recumbency leg cramps do not occur Quinamm may be discontinued in order to determine whether continued therapy is needed

Product Information as of October 1980

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5 mg controlled-release tablets

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verweight patients in certain diagnostic categories
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tions in the overweight, it may have a useful place
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en. Tenuate should not be administered to patients
th severe hypertension; see additional Precautions
d Adverse Reactions on this page.

uncomplicated obesity

any patients, on the other hand, present with excess
but no disease. While this condition is often termed
complicated obesity, complications of both a social
d a psychologic nature may be distressingly real for
patients. In these cases, a short-term regimen of
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uble-blind, placebo-controlled studies attest to its
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ences: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati,
45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride.
ntral Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York.
n Press, 1978, pp. 391-404.

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AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous.* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

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Examine Me.

During the past several years, I have heard my name mentione in movies, on television and radio talk shows, and even at Senate subcommittee sessions. And I have seen it repeatedly in newspapers magazines, and yes, best-sellers. Lately, whenever I see or hear the phrases “overmedicated society,” “overuse,” “misuse,” and “abuse,” my name is one of the reference points. Sometimes even *the* reference p

These current issues, involving patient compliance or dependen proneness, should be given careful scrutiny, for they may impede my overall therapeutic usefulness. As you know, a problem almost alway involves improper usage. When I am prescribed and taken correctly, I can produce the effective relief for which I am intended.

Amid all this controversy, I ask you to reflect on and re-examin my merits. Think back on the patients in your practice who have bee helped through your clinical counseling and prudent prescriptions for me. Consider your patients with heart problems, G.I. problems, and inter personal problems who, when their anxiety was severe, have been a to benefit from the medication choice you’ve made. Recall how often you’ve heard, as a result, “Doctor, I don’t know what I would have do without your help.”

You and I can feel proud of what we’ve done together to reduce excessive anxiety and thus help patients to cope more successfully.

If you examine and evaluate me in the light of your own experie you’ll come away with a confirmation of your knowledge that I *am* a s and effective drug when prescribed judiciously and used wisely.

For a brief summary of product information on Valium (diazepan Roche) Ⓒⅳ, please see the following page. Valium is available as 2-mg, 5-mg and 10-mg scored tablets.

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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

Usage in Pregnancy: **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
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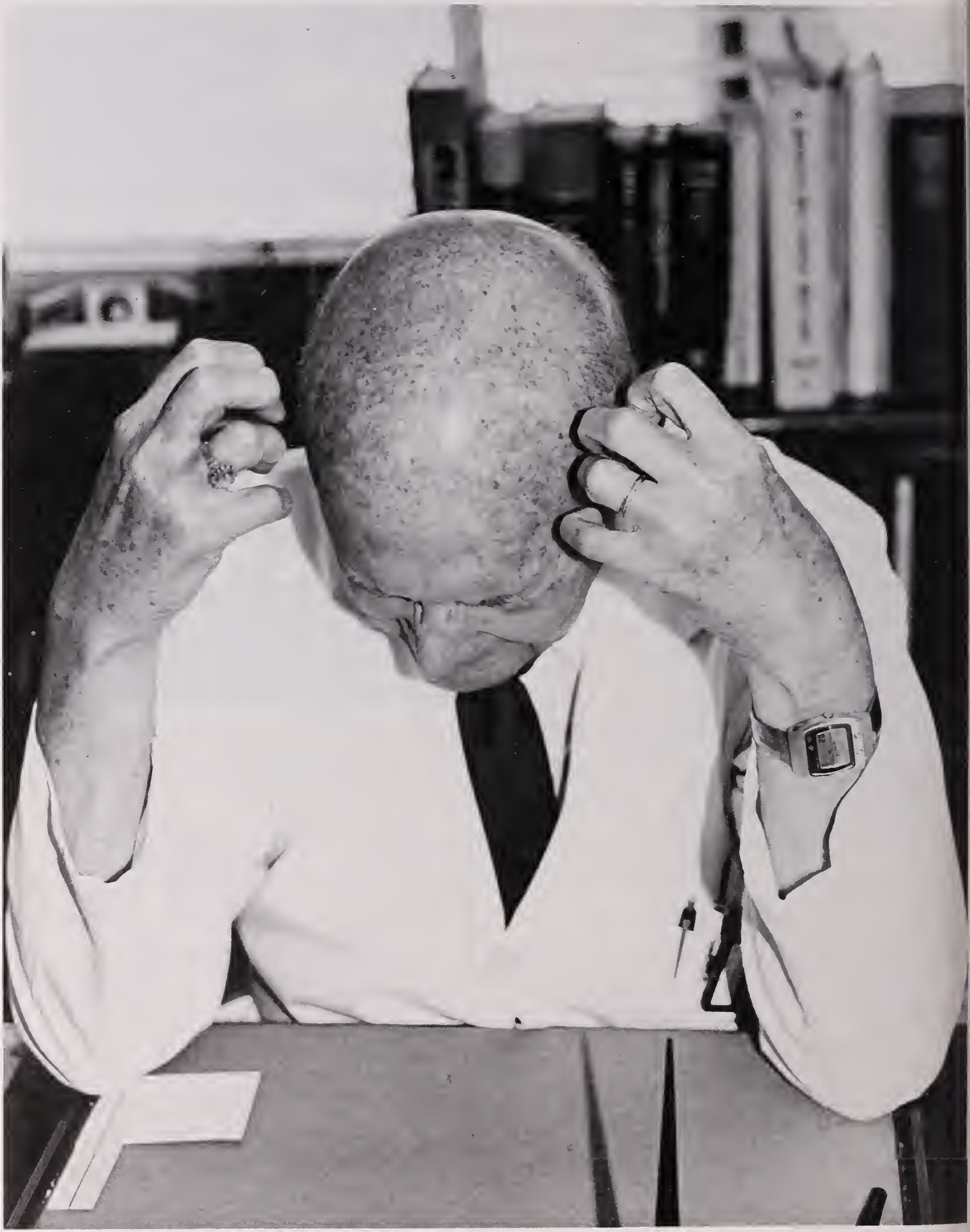

. . . and no hair left to pull out!

Editor’s Corner

What I Always Wanted to Do — and Haven’t!

I suppose I should be complimented that my patients think I have the memory of an IBM C-320 computer. After all, I am the big city doctor to many of them. Regrettably, however, my remembrance of them is not as good as their remembrance of me. I think I have been at least moderately successful at creating friends among my patients. But they sometimes seem to expect things I simply can’t deliver.

For instance, I am out buying nuts and bolts at the shopping mall. Up cruises an old gal with a large smile. I may have seen her seven years ago. Or, even more ridiculous, she may have come along with her mother. Nevertheless, she pins me to the wall.

“Dr. Wooldridge,” she says, “you don’t know who I am, do you?”

Now, my first impulse is to say, “Frankly, Madam, I haven’t the slightest damned idea who you are. You do look something like my Uncle Joe’s horse, but it died of old age a long time ago.”

But I just can’t do it.

Then, at seven o’clock on Sunday morning, the phone rings. A voice says, “Is this Dr. Wooldridge?”

I really want to say this is the Springfield zoo, but I know that would only dig my grave a little deeper. So, against my better judgment, I confess that I am me.

Then the voice says, “Doc, this is Pete Evans, from Sparta. My woman has had a turrible itching in her privates fer two weeks. Last night it about drove her wild and she kept me awake all night. What’s causing her trouble? I’ll tell you right now, Doc, that I’ve got to have my rest.”

Like any of you, I have an almost uncontrollable desire to say, “Sure, Pete, I was just sitting here at seven o’clock on Sunday morning waiting for you to call. Why don’t you hold your woman’s privates up in front of the phone? Maybe that would help me decide.”

But I just can’t do it.

And there is the lady who appears unannounced at the office and insists on seeing me . . . “Not as a patient. It’s a private matter.”

So I stop what I’m doing and go into my office to find out what is going on.

I am confronted by a lady whom I have never seen before. Politely, I inquire, “What may I do for you?”

Without identifying herself she says, “You saw my brother last week. What did you think of him?”

Of course, I not only do not know her, but I also haven’t any idea who her brother is. So it has been a temptation to reply “Your brother? Your brother? Oh, yes! I didn’t think much of him but, after all, he’s your brother, not mine.”

But I just can’t do it.

And I sure would like to.

Wilfred E. Wooldridge, M.D.

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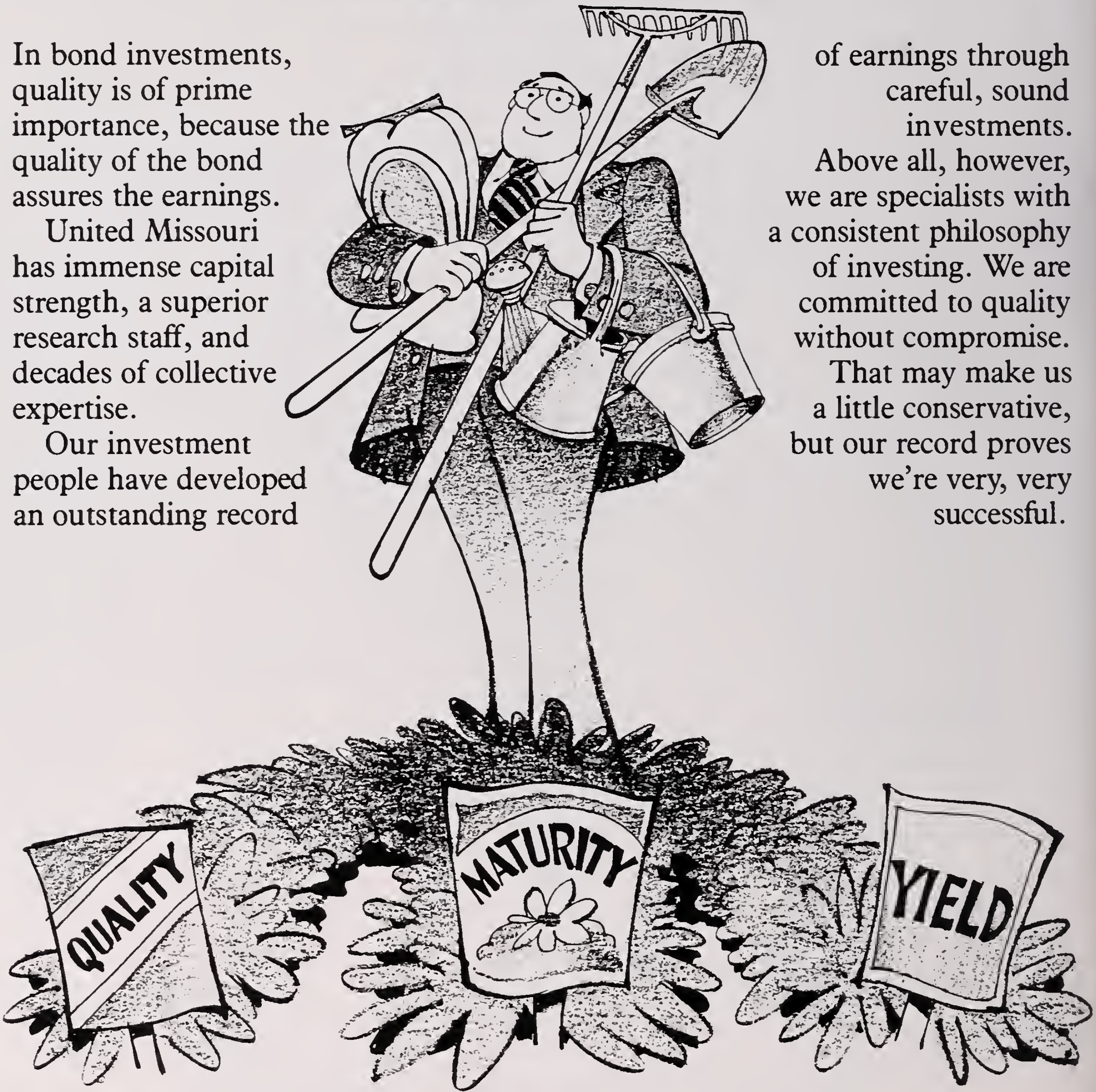

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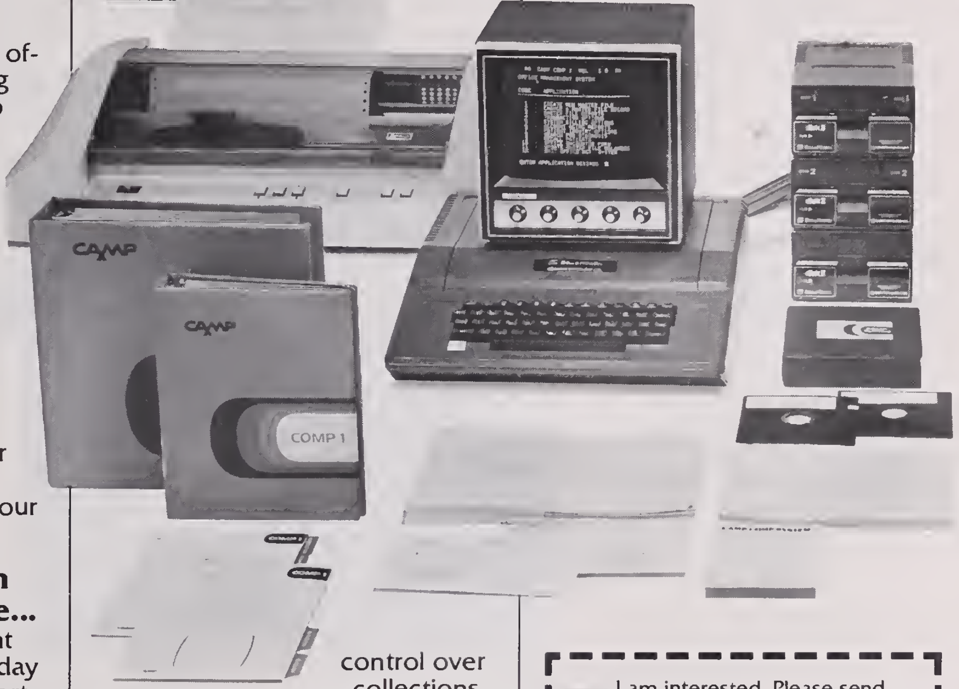

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PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriat measures should be taken if this occurs.

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Complete literature available on request from Professional Services Dept. PML.

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Volume 78, Number 8 — August, 1981

Missouri Medicine

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Special Review Article

MARTIN J. BELL, M.D., RICHARD J. BOWER, M.D.
and JESSIE L. TERNBERG, M.D., *St. Louis*

Selected Topics in Pediatric Surgery

Current Concepts of Diagnosis and Management

ECROTIZING ENTEROCOLITIS (NEC)

PPROXIMATELY 5% of neonates admitted to neworn intensive care units develop NEC, with ortality in the range of 25%. While the exact ause of NEC remains unclear, perinatal stress hypoxia, hypotension, hypothermia) in combinaion with an altered gastrointestinal microflora eem implicated in the development of this disase. The classic case is that of a premature infant ith hyaline membrane disease (feedings having egun) who develops emesis, abdominal distenion and is found to have blood in the stool. Other ndings include less specific changes of temperaure instability, apneic spells, bradycardia and oor feeding. More advanced disease is suggested y the presence of pallor, hypotension, abdomial erythema or an abdominal mass. The major ifferential diagnoses include neonatal sepsis, alrotation with volvulus and Hirschsprung's disase with enterocolitis.

The diagnosis is best supported by the finding f gas collections (pneumatosis intestinalis) within e bowel wall on radiographic abdominal exmination (Fig. 1). Other findings include separaon of loops by increased ascitic fluid or bowel dema, hepatic gas arborization (Fig. 2), persistnt "fixed" bowel loops and pneumoperitoneum. he radiographic abdominal examination should include a plane film and a left side down decubitus that will show small amounts of free air, if present, over the liver. Laboratory findings that support the diagnosis and suggest advancing disease include evidence of metabolic acidosis, thrombocytopenia and hyponatremia. Aspiration of peritoneal fluid with a 22-gauge plastic catheter may show brownish fluid or Gram negative organisms. Both findings are suggestive of intestinal gangrene.

The surgical care of infants and children continues to progress. Pediatric surgery has become a specialty. Both nationally, and within the state of Missouri, most university medical care centers and children's hospitals now have divisions of surgery devoted exclusively to the management of disorders of the newborn, child and adolescent. In 1973, Hendren extensively reviewed pediatric surgical advances. More recent developments in certain areas warrant this selected review of progress in this field.

The authors are from the Division of Pediatric Surgery, Washington University School of Medicine and St. Louis Children's Hospital.

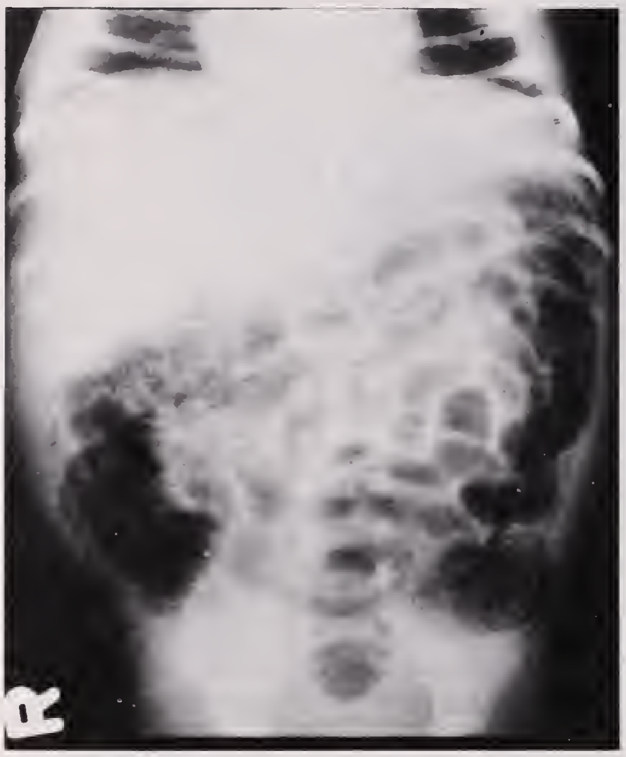

Fig. 1 Pneumatosis intestinalis seen as gas streaks around right and left colon.

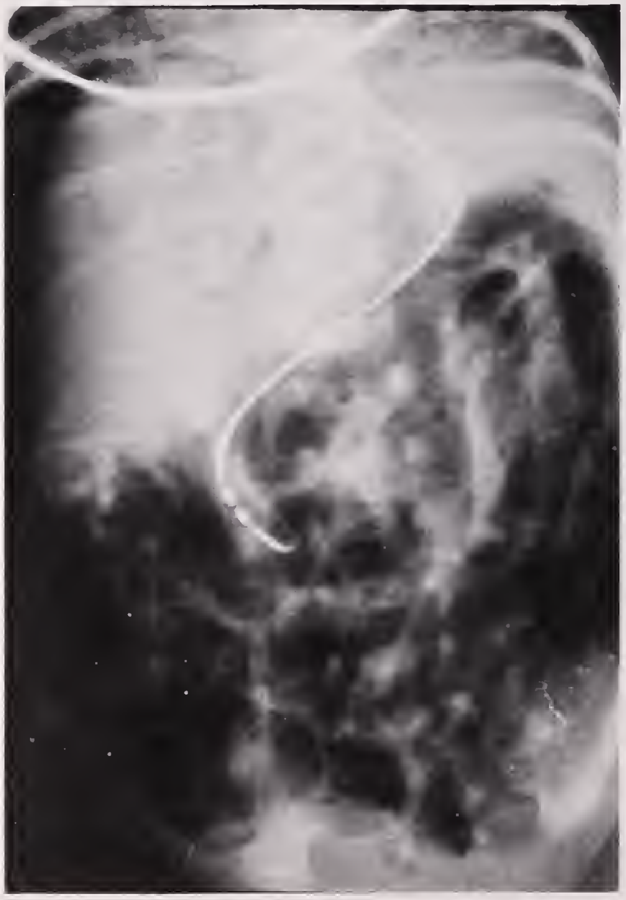

Fig. 2 Hepatic gas arborization.

Treatment of NEC depends on the degree advancement. Early disease is treated with inter sive medical support. This includes withholdin feedings, nasogastric decompression (#10 Fr. Re plogle sump tube on suction), generous intra venous fluid support (lactated Ringer's solutio with glucose 2000 cc/M^2/day or more) and antibi otic therapy. A combination of parenteral ampicil lin, gentamicin and clindamycin is advised. It als is suggested that gentamicin (10-15 mg/kg/day) b given by nasogastric gavage in six divided doses Adjunctive support may include red cell transfu sions, ventilator assistance and peripheral hyper alimentation. Frequent physical examination an reevaluation of radiographic and laboratory stud ies is imperative.

Indications for surgical intervention includ radiographic evidence of perforation, clinical deterioration, abdominal wall erythema or mass an abnormal paracentesis, as previously mentioned Standard surgical management includes resectio of all perforated or obviously gangrenous bowel proximal diversion (usually ileostomy) an mucous fistula construction. Copious warm salin lavage of the peritoneal cavity should preced layered closure of the abdominal wall. Postoperative care includes continued parenteral antibioti therapy, vigorous fluid and electrolyte resuscitation, and nasogastric decompression. Parentera hyperalimentation may be required until adequate bowel function resumes. Ileostomy drainage may require liberal sodium supplementation.

Bowel continuity may be restored after full recovery as demonstrated by adequate weight gain and growth. This usually is accomplished several months after discharge. A contrast study of the distal bowel should be performed before closure in order to exclude the presence of distal intestinal stricture. Although no systematic study of long term survivors has been done, the impression is that the children maintain a good state of health. If the terminal ileum has been resected, it is necessary to evaluate interim B_{12} absorption.

Management of the Child with Croup or Epiglottitis

Standard therapy for severe inflammatory upper airway compromise has generally been based upon tracheostomy. In recent years, endotracheal intubation has been popularized and is now a much more frequent method of insuring an adequate airway while the underlying inflammatory process resolves.

Because of the sudden episodes of airway occlusion noted in patients with epiglottitis, airway intervention is imperative when this diagnosis is made. In croup, however, airway intervention is necessary in only the few patients (10% of all hospitalized patients) who demonstrate evidence of respiratory failure. If time and degree of symptoms permit, radiographic evaluation of the upper airway will distinguish these two entities (Figs. 3 & 4).

Patients with epiglottitis or with croup and evidence of impending respiratory failure (tachypnea, tachycardia, restlessness, altered consciousness, cyanosis, bradycardia) should be taken to the operating room if at all possible. A tracheostomy set should be open, and a pediatric bronchoscope and tracheostomy tubes should be at hand. The patient may be induced in the sitting position with inhalation anesthesia, after which mask ventilation is usually adequate. Direct aryngoscopy verifies the diagnosis, and orotracheal intubation is performed. Anesthetic level is deepened, and the orotracheal tube may then be replaced with a nasotracheal tube, which is more table. The tube must be securely fastened with ape to the face. The child is then transferred to an ntensive care unit where he is restrained and edated to prevent extubation. Intravenous luids, antibiotics and scrupulous care of the airway are the features of his subsequent care. Epiglottitis should be treated with ampicillin and hloramphenicol until organism sensitivity is reported.

Extubation of the epiglottitis patient is accomplished when direct laryngoscopy reveals resolution of the inflammation (usually two to three days). The croup patient is extubated when he develops a significant air leak around the tube, ignifying regression of the subglottic swelling (five to seven days).

Although there are no concrete data to support it, our own experience and that of others suggest hat the use of inhalation racemic epinephrine may reduce the frequency of intubation in children with croup. This is delivered by mask nebulization with 0.5 ml of racemic epinephrine diluted in 3.0 ml of physiologic saline. The treatment usually takes five to ten minutes and, if effective, produces very rapid ventilatory improvement. Tachycardia is a common side effect. The treatment may be repeated with some frequency with careful observation of the child. If the periodic peaks of increased airway obstruction that are known to occur in croup are blunted by this treatment, it may be possible to avoid intubation in some children (Table 1).

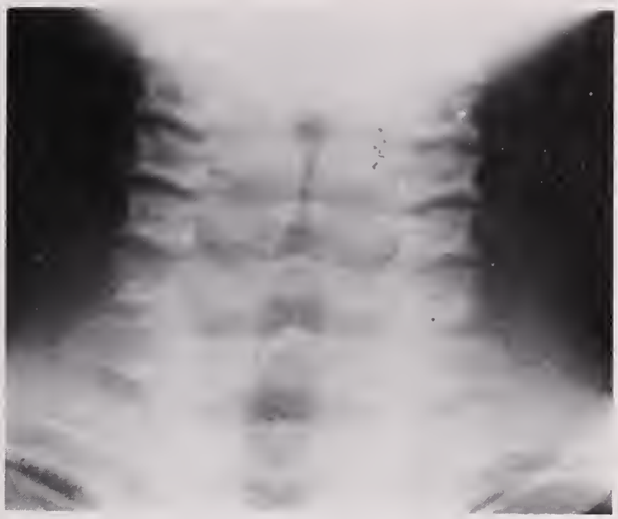

Fig. 3 Narrowed subglottic airway in viral group.

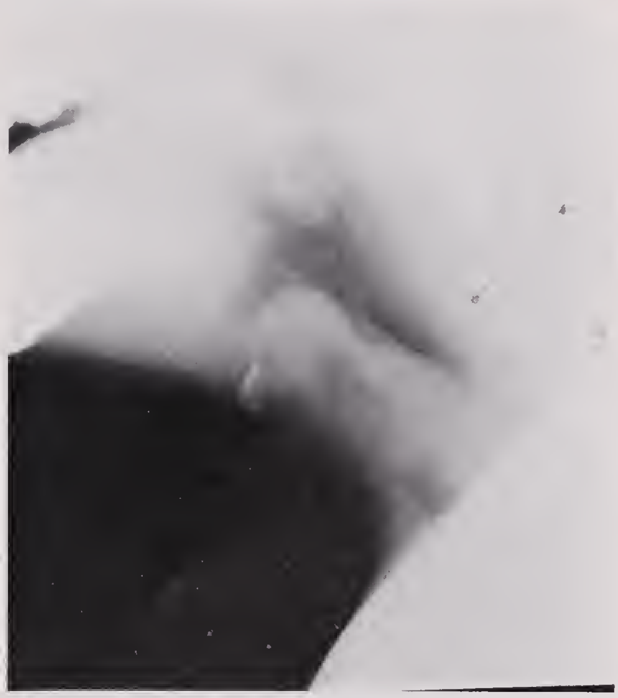

Fig. 4 Thickened, edematous epiglottis and aryepiglottic folds.

Gastroesophageal Reflux and Hiatus Hernia

The past few years have seen a broadened recognition of gastroesophageal reflux (GER) as the cause of a number of symptoms usually in infancy and early childhood. The distribution and types of symptoms of GER differ from those of the adult and vary from minimal, readily treated manifestations to severe life-threatening episodes of aspiration. It also should be noted that many children

TABLE 1
DISTINGUISHING FEATURES OF CROUP AND EPIGLOTTITIS

	Croup	*Epiglottitis*
Etiology	Viral (parainfluenza) Seasonal, epidemic	H. influenza (type B) Sporadic
History	Gradual onset Fluctuating course	Sudden onset Rapidly progressive
Physical signs and symptoms	Low grade fever Stridor Barky cough Retractions, alar flaring Hoarseness	High fever Stridor Minimal cough Retractions, alar flaring Weak voice Pallor, toxic appearance Drooling, dysphagia "Sniffing dog" position (head thrust forward, sitting)
Airway radiographs	AP film — tapered subglottic airway (pencil sign) ± pneumonic infiltrates	Lateral film — thickened epiglottis (thumb print sign) ±pneumonic infiltrates
Blood culture	No growth	H. influenza (type B) — 90%
Throat culture	Normal flora	H. influenza (type B) — 50%
White count	Mild elevation, lymphocytosis	Marked elevation, left shift

with GER also have coexistent disease, most commonly central nervous system disorders. This may make the diagnosis somewhat obscure unless it is considered in this setting.

Recurrent emesis may lead to insufficient nutritional support with resultant growth failure (failure to thrive). The diagnosis is made after extensive diagnostic evaluation to rule out other causes of growth failure. More dramatic and acute symptoms may result if the primary effect of the GER is respiratory. Emesis with aspiration may lead to recurrent pneumonia. Acutely, there may be sudden spells of cyanosis, bradycardia and, even, cardiorespiratory arrest. These episodes are aptly termed "dying spells." In the older child, GER may be manifested by asthma-like symptoms such as wheezing and night cough. Least common among children, in contrast with adults, are symptoms of GER primarily reflecting esophageal pathology. Esophagitis with chronic bleeding and anemia, esophageal stricture with dysphagia and retrosternal discomfort and "heart burn," however, may be symptoms of GER in childhood.

The diagnosis of gastroesophageal reflux is best and most simply made by barium contrast radiographic study. The child is given a usual feeding volume of contrast material by nipple, cup or tube and the stomach and esophagus are observed. No provocative maneuvers should be employed. The presence of a hiatus hernia should be noted and described, although this correlates poorly with symptoms and prognosis. The degree of reflux may be quantitated roughly by a description of the ease at which contrast refluxes from the stomach and the length of esophagus which fills in a retrograde manner. The gastric outlet and duodenum should be examined for sources of obstruction, and the esophagus should be evaluated for the presence of esophagitis.

Numerous papers that have recently appeared in the medical literature advocate some form of quantitation of the degree or severity of reflux. These include endoscopy and esophageal biopsy, acid reflux studies, radionuclide studies and manometrics. While these studies may add a dimension to the understanding of this disorder, therapeutic decisions probably should be made on the basis of severity of symptoms and the radiographic demonstration of GER.

For most patients, an effort at nonsurgical therapy is appropriate. Elevation and smaller, more frequent feedings and formula thickening are appropriate measures. If there is no improvement during careful observation for a limited period of time (two to three weeks), surgical therapy should be considered. Exceptions to this are the child who has had "dying spells" and who warrants early intervention, the child with esophageal stricture and the older child who already maintains an upright position most of the time.

The Nissen fundoplication is one of the most reliable ways of preventing reflux. Alternative operations include the Thal partial wrap, the Boerema and Hill gastropexy procedures and the transthoracic Belsey operation. All procedures have their advocates, and each has points which recommend it. Surgical success is to be expected and most recent series report no or low mortality and morbidity. It should be clear, however, that in the setting of a child with complex illness such as prematurity with bronchopulmonary dysplasia or severe psychomotor retardation, unequivocal success may not follow operation.

Splenic Trauma

Automobile accidents, contact sports, falls or child abuse can lead to serious intra-abdominal injuries in children. The spleen is one of the most commonly damaged organs and, for years, standard surgical practice has been to remove injured spleens, even when there was no active bleeding. Two facts appreciated over the past decade have ed to a drastic change in the pediatric surgeons' approach to the injured spleen: (1) The spleen is of vital importance in the immunological defenses of the child, and splenectomy leaves the child at significant risk of overwhelming sepsis. (2) Surgeons have discovered that many splenic inuries heal, or can be repaired, and do not lead to exsanguination or other long term sequelae.

King and Schumacher were the first to recognize the immunological importance of the spleen. Numerous recent articles have emphasized the usceptibility to infection in otherwise normal children who have undergone splenectomy for rauma. The mortality rate from overwhelming epsis after splenectomy is 50 to 200 times the ncidence in the general population.

In 1971, a report from Toronto Children's Hospital suggested that selected cases of splenic rauma could be managed nonoperatively. Only hospitals equipped with well-staffed intensive are units for continuous close observation and monitoring should consider this approach. Others avor routine exploration for splenic injury to rule ut other possible injuries, stop splenic bleeding nd debride and repair the injured spleen.

Our current approach to the child with susected splenic trauma is depicted in Fig. 5. Chilren who have abdominal injury and who show vidence of rapid and continuing blood loss or igns of multiple organ injury are operated on mmediately. The child who appears to have ocalized left upper abdominal trauma indicating plenic injury and who is otherwise stable is admitted for close observation in the intensive care unit. A spleen scan is obtained to document the presence of a splenic injury, but this alone is not an indication for operation. Repeated evaluation of the vital signs, abdomen and hematocrit form the basis for either continued observation or operation. If the patient remains stable, he may be discharged after five to seven days and restricted from contact sports and athletics for three to six months. The spleen scan may be repeated to follow the healing process.

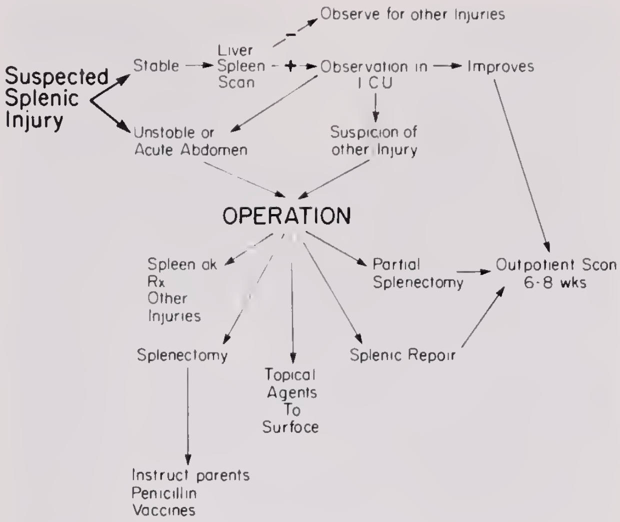
Suspected Splenic Injury
Stable
Liver Spleen Scan
Observe for other Injuries
Observation in ICU
Improves
Unstable or Acute Abdomen
Suspicion of other Injury
OPERATION
Spleen ok Rx Other Injuries
Partial Splenectomy
Outpatient Scan 6-8 wks
Splenectomy
Topical Agents To Surface
Splenic Repair
Instruct parents Penicillin Vaccines

Fig. 5 Algorithm for management of splenic injury.

When operative intervention has been chosen, the injured spleen can and should be salvaged in most cases. Partial splenectomy and splenic repair are more tedious and time consuming than splenectomy but are the proper standard of care in 1980. The techniques of splenorraphy have been reviewed by Buntain and Lynn. Obviously, extreme degrees of injury or other more serious injuries may make a prolonged attempt at salvage unwise. In children in whom splenectomy is necessary, long term penicillin prophylaxis as well as immunization with pneumococcal vaccine are recommended. Cases of overwhelming sepsis have occurred 25 to 30 years following the splenectomy. Most cases of postsplenectomy sepsis have been caused by the encapsulated organisms, such as the pneumococcus and meningococcus, but staphylococcus, streptococcus and Gram-negative enteric organisms also have been reported.

When splenectomy is necessary, the parents must have a full explanation of the risk of postsplenectomy sepsis so that they will be quick to

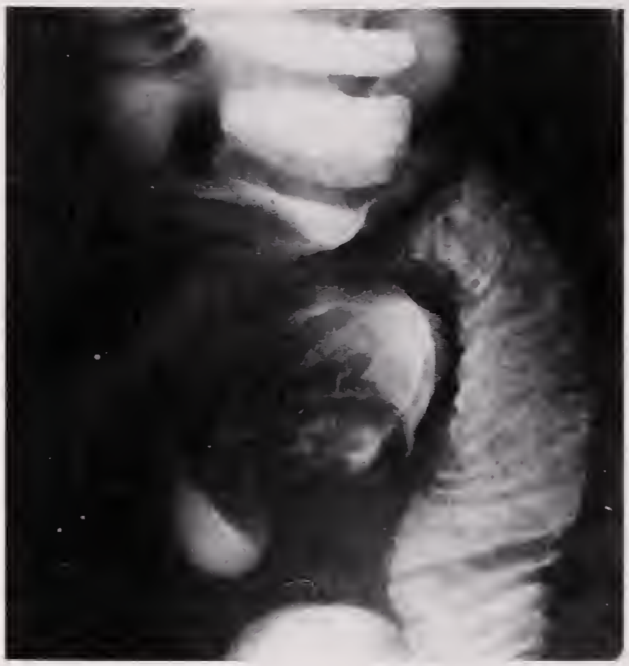

Fig. 6 Mass effect on cecum secondary to inflammatory mass of appendicitis.

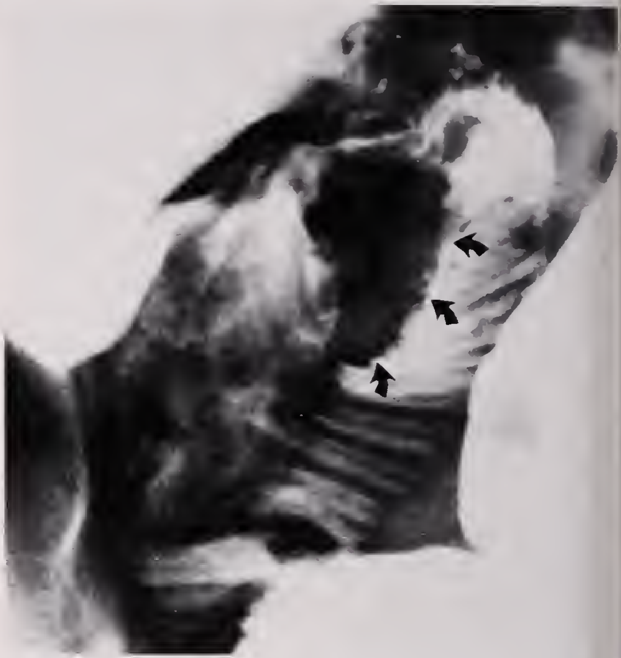

Fig. 7 Edema and spiculization of the terminal ileum.

seek medical aid when their child has even trivial symptoms of infection.

Use of the Barium Enema in the Diagnosis of Appendicitis

The diagnosis of acute appendicitis can be difficult in some children. Heretofore, a negative exploration rate of 15% to 25% has been considered acceptable in order to hold the incidence of perforation to a minimum. Recently, the barium enema has been employed to confirm or rule out the presence of appendicitis in those patients in whom the diagnosis is unclear. It is also a particularly useful examination in the child with complex medical problems such as leukemia, sickle cell disease, cystic fibrosis and hemophilia.

The examination by barium enema for appendicitis consists of evaluating luminal filling and the presence or absence of inflammatory changes in the contiguous structures. The pathophysiology of appendicitis includes luminal obstruction. It is this obstruction that makes the barium enema safe in this setting, since barium spillage becomes very unlikely. Partial filling of the appendix, with a ragged appearance of the termination of the barium, is consistent with appendicitis. Complete filling with a smooth, rounded termination of the luminal barium is evidence against appendicitis. Nonfilling of the appendix, however, is equivocal since 10% to 15% of normal patients will have nonfilling of the appendix on barium enema.

Inflammation of the appendix can produce a mass effect on the cecum (Fig. 6), terminal ileum or sigmoid colon. Spasm and mucosal spiculation of the contiguous bowel are also evidence of inflammation in the region, most likely to be due to acute appendicitis. Also, by palpation during the fluoroscopic examination (Fig. 7), the radiologist can delineate the area of maximal tenderness.

Of course, it must be stressed that the barium enema should not be used to replace a careful history, physical examination and evaluation by a surgeon. Rather, it should be considered as an adjunct in a limited number of difficult patients.

Pectus Excavatum

A chest wall deformity such as pectus excavatum can be a psychological, cosmetic and physiological detriment to a youngster. The etiology of "funnel chest" is unknown and the natural history of the disease varies. Some cases noted in the first year of life seem to stabilize and may even become less noticable as growth continues. Other sternal depression deformities, however, become deeper and more obvious by age three or four years. It is possible to identify the severe and progressive cases by age three years. We believe that these patients should have operative correction of the deformity prior to age ten years rather than delaying till the teen-age years when operative correction is a more difficult procedure and the patient's self-image has been formed.

While the majority of repairs are indicated on a purely cosmetic basis, there is no question that some severe depression deformities can lead to cardiac and respiratory compromise in later life. Cardiac catheterization data has shown a decrease in cardiac output during upright exercise in even moderately severe (i.e., not extreme) deformities. Angiography frequently demonstrates right ventricular outflow tract or right ventricular compression. Parents are often unaware of the child's easy fatiguability until they notice the increased stamina and endurance after surgical repair. Extreme individual cases in adults with severe dyspnea, heart failure, palpitations, pain, and recurrent pneumonia and bronchiectasis have been reported.

If not repaired, few patients would progress to such extremes of physiologic disruption. Some children are able to live with a deformity and thrive in all social and sports activities. However, many with a pectus deformity are, by age eight or ten, psychosocial cripples because of embarrassment about their appearance. Children avoid exposing their chests in locker rooms and at swimming pools and tend to avoid such activities. They become reclusive and yet often do not even verbalize their embarrassment to the parents until the teen-age years. By then, they have subconsciously deprived themselves of many experiences and may have permanently changed their personality and self image. Early repair has been shown to be safe with excellent cosmetic and anatomical results.

The best approach to pectus excavatum is evauation and serial examinations by the surgeon so hat he can document the growth of the chest wall by photographs, observe changes over a two-to hree-year period and decide carefully if, and when, correction is indicated.

Biliary Atresia

It has been 12 years since heaptic portoenterostomy for the treatment of biliary atresia, now commonly referred to as the Kasai procedure, was reported in an English language surgical journal. The paper by Thaler and Gellis on the adverse effect of diagnostic laparotomy and the prognosis of neonatal hepatitis plus reports of unuccessful attempts to use the procedure contributed to the delay in utilizing the operation in his country. As experience in its use has increased, the success rate for the Kasai procedure now being reported approaches the experience of the Japanese.

Early studies of biliary atresia patients suggested that at most one of five infants would have a surgically correctable lesion. It was for the other 80% of morphologically "inoperable" cases that Dr. Kasai developed the hepatic porto-enterostomy procedure.

A number of causes of biliary atresia have been proposed at various times. Basically, the theories can be grouped into three categories: anatomic malformation, hepatic response to inflammation/injury, and genetic disorder. Although not definitively established, the concept of neonatal obstructive cholangiopathy is increasingly accepted. It is a mistake to assume that all biliary atresia has the same origin. The 16% to 20% of cases with so-called surgically correctable disease may represent a congenital malformation. The largest group, however, seems to be best described as an injury-inflammatory agent produced obstructive cholangiopathy.

Early diagnosis is now important as results of the Kasai operation are better if the procedure is done before cirrhosis develops. It is presently urged that the procedure be done before the infant is 11 weeks old. Good bile flow is achieved in 92% of infants operated upon before they are 60 days old, in 50% of infants if the procedure is delayed until the infant is 71 to 90 days old and in 29% in infants over 91 days of age.

The major diagnostic problem is encountered when screening tests have ruled out known specific causes of prolonged infant cholestasis such as alpha-1 antitrypsin deficiency. The problem then is basically the differentiation between intrahepatic and extra-hepatic cholestasis. Numerous laboratory tests have been developed in an attempt to make this distinction. As might be expected from a consideration of the pathophysiology, a distinct differentiation has not yet been found. There is a major overlap of the laboratory values instead of clearcut differences. The ultimate resolution of the question is made by an exploratory laparotomy and operative cholangiogram which should be done before the baby is 11 weeks of age. Although the diagnosis will usually be obvious by three months of age without an operation, the long-term prognosis will be significantly poorer.

The procedure has a number of variations. All are designed to reduce the incidence of ascending cholangitis in the postoperative period. Except for the instance in which a hepatic portocholecystostomy can be done, the majority of repairs are hepatic porto-jejunostomies and the jejunum is diverted to the outside. The variations in the procedure are primarily variations in the diversion strategy. The cutaneous exteriorization of the bile output is temporary and the biliary drainage is eventually returned to the intestinal tract by a second operation.

In addition to the risk of postoperative ascending cholangitis the bile output of the patients must be monitored. If it becomes large, it must be returned or the electrolyte content monitored and replaced. The provision of fat soluble vitamins and specially chosen formula feeding may also be necessary if the bile is not being returned to the gastrointestinal tract.

Results have continued to improve with experience. Jaundice has disappeared in 61% of the patients operated on at Tohoku University (Dr. Kasai) since 1971. Some of the early patients are now young adults living normal lives. One long-term complication has been portal hypertension associated with the progression of cirrhosis.

Thyrotoxicosis

Graves' disease in children has traditionally been treated by using the thyroid blocking agents, propyl-thiouracil and methiomazole. Recent reports indicate a decreased rate of remission with the use of anti-thyroid drugs. Complications of drug therapy in children include granulocytopenia, hepatitis, arthritis and arthralgias (collagen-vascular type symptoms), and they develop in as many as 19% of patients treated. Prognostic factors that could be used to predict which patients will relapse following the discontinuance of drug therapy have been sought. For example, it has been reported that boys, children under ten and patients with no decrease in thyroid gland size after medical treatment are more likely to require thyroidectomy for disease control. In our personal experience, only the failure of decrease in gland size has been reliable.

The surgical procedures proposed are subtotal, near total and total thyroidectomy. The proponents of subtotal thyroidectomy hope to avoid the surgical production of hypothyroidism and complications such as hypoparathyroidism and recurrent laryngeal nerve paralysis. The proponents of near total or total thyroidectomy generally report complication rates to be no higher than for subtotal and consider the possibility of recurrence of Graves' disease and its subsequent care to outweigh the problem of need for life-long exogeneous hormone treatment. Therapy with ^{131}I should be reserved for patients for whom the other forms of therapy are contraindicated.

In a ten-year period (1967-1977), we have operated on 42 of 68 patients treated for Graves' disease at St. Louis Children's Hospital. There were five complications which included two instances of transient hypoparathyroidism, one wound infection and two wound hematomas. There have been no recurrences of hyperthyroidism. Because of the low long-term remission rate and because of a significant incidence of medical complications, we recommend initial control of Graves' disease in children with antithyroid drugs followed by near total thyroidectomy in the patient for whom surgery is not contraindicated.

Thyroid Cancer

There are four kinds of thyroid carcinomas: papillary, follicular, medullary and the anaplastic or undifferentiated type. Except for the undifferentiated type, they are all slow growing. The prolonged follow-up necessary plus the small numbers involved in most series has made it difficult to evaluate treatment.

Basically, the proposed operations vary according to the extent of the thyroidectomy (lobectomy, lobectomy plus subtotal, total) and to the extent of lymph node removal (modified radical neck dissection, radical neck dissection, removal of nodes as they appear involved). Metastatic disease involving the cervical nodes has been reported to be present in from 30% to 80% of cases. Distant metastatic disease in the form of pulmonary metastases is present in 10% to 20% of children with thyroid carcinoma at the time of diagnosis. A total thyroidectomy is indicated in these children with pulmonary metastases as treatment with ^{131}I has been effective, especially when thyroid gland function has been ablated by a combination of surgery and radioactive iodine. A history of cervical irradiation also is an indication for total, or near total, thyroidectomy based on recurrence experience. With these exceptions, unilateral-lobectomy with contralateral exploration appears to be appropriate surgical therapy with removal of only obviously enlarged contiguous lymph nodes. Good follow-up is indicated to detect and treat metastatic and recurrent disease. It must be pointed out that a 20- to 30-year prognosis has a different meaning for the ten-year old compared with the 40-year-old patient.

Medullary thyroid carcinoma involves both lobes of the thyroid and, although generally slow growing, has a variable malignant potential. Two facts have brought medullary thyroid carcinomas into prominence: (1) As a tumor of the calcitonin-secreting cells of the thyroid, it can be suspected on the basis of an elevated level of plasma calcitonin. (2) It can be a part of an inherited syndrome of multiple endocrine neoplasias (MEN, also called MEA for multiple endocrine adenomas). The operation for medullary thyroid carcinoma is total thyroidectomy; hence, the importance of correct preoperative diagnosis, especially in those centers where lobectomy and subtotal thyroidectomy are the usual operations for thyroid carcinoma.

Gall Bladder Disease in Children

The diagnosis of gall bladder disease in children should no longer be regarded as a curiosity. Both calculous and acalculous disease occurs. Calculous disease is usually found as a primary abdominal problem whereas in acalculous disease, the abdominal problem usually develops secondarily as a part of another illness.

Calculous Disease

The history of hemolytic episodes should increase suspicion of the possible presence of pigment stones. Severe infections can be associated with hemolysis as well as the hematologic disorders (spherocytosis, sickle cell disease, etc.). Note, however, that mixed and cholesterol stones also occur in children, and the absence of hemolytic disease does not eliminate the possibility of gallstones. There also is an increase in the reported incidence of stones in adolescent females hat appears to be associated with teen pregnancies.

Acalculous Disease

A primary infectious process involving the gall bladder can be the origin of acalculous cholecystiis in children. Infection, however, is more usualy a secondary phenomenon that develops after he onset of biliary stasis occurring as a conseuence of severe illness or injury. Much less freuently, biliary stasis occurs as a result of conenital cystic duct stenosis and, again, the acalcuous cholecystitis in these instances can be with or without secondary infection. It has been postuated that some gall bladder disease present in dults may actually have originated in childhood.

The problem in diagnosis is basically one of not onsidering biliary disease as a possibility in the ifferential diagnosis of abdominal pain in chilren. Missing the diagnosis can increase morbidity and on occasion result in mortality.

The most common error made when gall bladder disease occurs in children as an acute abdominal problem is to diagnose appendicitis. In this circumstance, making the correct diagnosis during the operation is unlikely because of the location of the incision.

The classical treatment for cholelithiasis is cholecystectomy. In children, stone removal alone has been done and reported to be successful over the long term. This does not seem rational unless the cause of the stone is known and can be effectively eliminated. The operative treatment of acalculous disease of the gall bladder has been either cholecystotomy or cholecystectomy. The problem of recurrent disease and the relative safety of cholecystectomy are cited as reasons for that procedure. If the problem that has caused the acalculous cholecystitis can be resolved, simple drainage of the gall bladder has been demonstrated to be effective treatment of the cholecystitis and subsequent cholangiograms indicate the return of normal function. The prejudice in treating a child should perhaps be toward preserving organs even if their function is not judged essential.

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(Continued on page 413)

RONALD JAMES, M.D., *Columbi*

Camping for Diabetic Children

Camp Hickory Hill in outstate Missouri was created in 1974 for children with diabetes. In addition to the usual camping activities, it offers an intensive diabetes education program that often is not otherwise available to these youngsters. Dr. James is medical director for Camp Hickory Hill and operates the Midwest Diabetes Treatment and Education Center. He is on the staffs of Boone County and Columbia Regional hospitals.

A CAMP FOR CHILDREN with diabetes mellitus was first held in the summer of 1929 near Cleveland, Ohio. Less than ten children attended. Since then, the number and size of such camps has increased until there are now approximately 80 in North America and some in other countries. Some of the American camps serve more than 500 diabetic children each summer. Thus, several thousand children benefit each year.

A camp for diabetic children in outstate Missouri first became a reality in 1970. That year, 21 children attended. In 1974, a camp site was acquired 3½ miles northwest of Columbia. It is known as Camp Hickory Hill and is owned and operated by the Central Missouri Diabetic Children's Camp, Inc., a nonprofit, tax-exempt Missouri corporation. It is financed in part by the American Diabetes Association. Other support comes as donations from interested individuals, businesses, civic organizations and foundations and from campers fees. Another important contribution is that made by the staff (many of whom are diabetic themselves). These, with few exceptions, serve without pay, making the camp a truly volunteer organization.

Camps for diabetics serve many purposes, but they vary from one camp to another. In the words of Gerald Burns, who was executive director of the American Camping Association, "Camping is the wedding of education and recreation consummated in the great out-of-doors." Fun and recreation are a major part of the program at Camp Hickory Hill and are provided by such activities as arts and crafts, nature study, archery, fishing, swimming, canoeing, boating, spelunking, rappelling, firearm and hunting safety, softball, volleyball and other sports. Character building i the form of skill development and learning t relate with others is an important function c these activities as is the total process of living i the camp setting (Table 1).

TABLE 1
PURPOSES OF DIABETIC CAMPING

1. Fun and recreation
2. Character building
   a. Skills
   b. Relating to others
3. Treatment of diabetes
   a. Diabetes education
   b. Emotional care
   c. Medical management
4. Education of health professionals
5. Research
6. Vacation for parents

Fun, recreation and character building ar among the purposes of all good camps servin children. Diabetes camps have additional purposes that relate to the fact that diabetic childre have special problems. Education about diabete has high priority at Camp Hickory Hill becaus many of the campers are treated by family physicians, general pediatricians or internists who seldom have access to intensive diabetes educatio programs. Thus, many of these children have ha little or no diabetes education and a camp ma serve as their only source. For those campers wh have had the benefit of an education program, camp reinforces what has already been taught an often provides additional information.

In order that educational programs as well a activities appropriate for the campers' ages ma be provided, the camp is divided into two sessions. Each morning after breakfast, a discussio regarding some aspect of diabetes or its care i held for the older children (ages 13 to 17 — firs session). Topics include urine testing, insuli reactions, insulin injections (not specific treatment), foot care, diet, chronic complications an pregnancy in diabetes. For younger camper (ages 8 to 12 — second session), discussions o urine testing, insulin reactions, insulin injection and diet are conducted.

Informal education also is important. Urine testing is done four times daily before meals and at bedtime. Insulin injections are taken according to the individual camper's schedule under the supervision of the medical and counselor staff. Insulin doses are adjusted up or down as indicated, but the number of injections per day is not changed except during illness.

The meal plan is obtained from the parent or camper. If the camper has no meal plan, one is prepared. Meals are served family style and the food is weighed on dietetic gram scales by the campers. Thus, much of the education is an informal, learn-by-doing process.

The psychological benefits of diabetes camping are emphasized. Many of the staff can serve as role models and provide much informal education. Meeting other children with diabetes, participating in the usual camp activities, and learnng to test their own urine, follow their diets and give their own insulin injections are important psychological products of diabetes camping.

Each year, the parents or physicians of some of hose attending camp request us to prepare a reatment program for their children. In some cases, this has significantly decreased the frequency with which these campers subsequently have been admitted to hospitals.

Camps can serve to educate health professionls about diabetes. Resident physicians, medical tudents, student dietitians and student nurses have received training while serving as volunteers at Camp Hickory Hill. This is often a part of their formal education for which they receive credit.

Children attending camps for diabetics are often used, with parenteral permission, as subjects for diabetes research and scientific observations. Camps provide excellent groups of children in a controlled situation outside the hospital setting, thus making data easy to collect. Research and experiments in diabetes are *not* done at Camp Hickory Hill.

Finally, camp can serve as a vacation for the parents of a diabetic child, relieving them of the daily supervision necessary to properly care for their children.

Each year, between 70 and 100 children attend Camp Hickory Hill. They must be eight to 17 years of age and take insulin injections. Campers fees are based on family income, but all children are accepted regardless of ability to pay.

The camp's address is Camp Hickory Hill, P.O. Box 1942, Columbia, MO 65205.

SUMMARY

The purposes of camping for diabetics include fun and recreation, character building, treatment of diabetes, education of health professionals, research and vacations for parents. This article describes how Camp Hickory Hill fulfills these purposes in outstate Missouri.

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An Approach to Patients With Recent Onset of Arthritis

Part II

CLASSIFICATION OF ARTHRITIS

THERE ARE NUMEROUS types of arthritis and any system of classification is arbitrary. The following categories provide a simplified method of categorizing joint abnormalities to facilitate the diagnostic and therapeutic approach and are based on the chronicity of joint symptoms and the number of joints involved. For the purposes of this classification, acute arthritis indicates that symptoms and signs of joint inflammation are resolved within approximately eight weeks after onset.

Acute Monarticular Arthritis

Any type of arthritis may have acute involvement of a single joint. Infection is the most serious form of monarticular arthritis and must be ruled out by aspirating and culturing the synovial fluid even when the clinical setting does not seem consistent with an infectious etiology.

Staphylococcus aureus and *Neisseria gonorrhoeae* are the most common microorganisms that cause septic arthritis in adults. Frequently, patients are afebrile and the peripheral white blood cell count may be normal. Although skin lesions are not always present in gonococcal arthritis, finding them provides a very helpful clue to the diagnosis and, thus, they should be carefully sought (Fig. 4). Most infected joints are seeded by hematogenous spread from a distant site,[19] but minor trauma to a joint also may precede infection. Large joints in the lower extremities, especially the hip, knee and ankle, are most frequently affected.

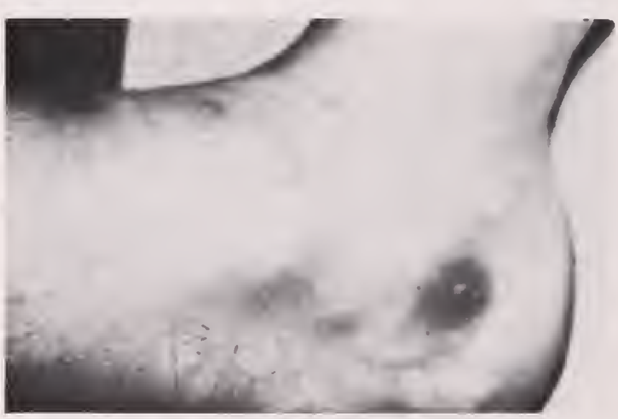

Fig. 4 Typical pustule with necrotic center found in disseminated gonococcal disease.

Gout and pseudogout also frequently present as acute monarticular arthritis. Most patients with gout will experience podagra (acute inflammation of the first metatarsophalangeal joint) at some time in the course of the disease. Pseudogout may involve the foot, but it affects the knee more often. The definitive diagnosis of crystal-induced synovitis such as gout (sodium urate)[7] and pseudogout (calcium pyrophosphate dihydrate)[4] is made by observing the crystals under polarized light (see below).

Other less common causes of acute monarticular arthritis include episodic RA and palindromic rheumatism. The latter is an intermittent type of arthritis which is rapid in onset, often within a few hours, and lasts from hours to no more than three days.[6] All signs of inflammation are usually present, including erythema. There should be no residual effects, and recurrent attacks may appear immediately or after any length of time. The knee is most frequently involved, but any joint or even soft tissue may be affected. Approximately one third of these patients may subsequently develop RA.

Reiter's syndrome or psoriatic arthritis may first appear with single joint involvement, the diagnosis of which is supported by the extra-articular findings mentioned above.

In addition to the typically inflammatory types of monarticular involvement, some causes of painful swelling in a joint are not accompanied by an inflammatory synovial fluid (described below). Examples include traumatic injury with or without hemarthrosis, internal derangement such as a torn meniscus or loose body, or hemarthrosis due to hemophilia.

Acute Polyarticular Arthritis

Again, even when multiple joints are acutely inflamed, an infectious etiology should be considered, especially in an elderly patient with a known primary site of infection or in an immunocompromised host. Frequently, the age of the patient and the complete clinical picture aid in the differential diagnosis. For example, Reiter's syndrome, gonococcal arthritis, acute sarcoidosis with erythema nodosum and ankle-knee arthritis, Rubella arthritis, acute rheumatic fever and systemic lupus are more likely to occur in people under 40 years of age.

Reiter's syndrome is more likely to affect men than women. The complete syndrome includes mucocutaneous lesions (oral ulcers, keratodermia blenorrhagica, circinate balanitis), urethritis and conjunctivitis,[8] frequently with fever. The joint nvolvement is primarily confined to the lower extremities in an asymmetrical distribution, but it may involve the upper extremities, sacroiliac oints and spine. The extra-articular symptoms may precede or follow the onset of arthritis, however, and "incomplete Reiter's" syndrome has been described[20] which lacks the extra-articular components of the disease. This disease was formerly considered to be an acute, self-limited sequela of infections such as gonorrhea or dysentery with, perhaps, one or two recurrences before permanent remission. Several studies have shown, however, that the disease may become chronic and debilitating.[8]

Gonococcal arthritis should always be considered in the young, sexually active person who has asymmetrical inflammatory polyarthritis. In addition to skin lesions, inflammation along tendon sheaths (tenosynovitis) also may be noted, especially on the dorsum of the hand.

The arthritis of acute sarcoidosis affects women primarily and occurs in up to 89% of acute sarcoidosis patients who have bilateral hilar adenopathy on chest x-ray.[11] The ankles and knees are lmost always involved with marked periarticular nflammation although other joints may be ffected. Erythema nodosum usually appears as ender, erythematous nodules of the anterior tibial subcutaneous tissue. Although this type of arthritis may persist for longer than eight weeks, it should remit within four months without residual joint damage.

Glossary of Abbreviations

DJD — Degenerative joint disease
MCTD — Mix connective tissue disease
RA — Rheumatoid arthritis
SLE — Systemie lupus erythematosus

In the case of many patients with the recent onset of arthritis, a diagnosis can be made with a thorough history and physical examination, including careful attention to the musculoskeletal system. The use of a simple classification of joint involvement may aid in planning further diagnostic and therapeutic approaches. Certain types of arthritis require aggressive evaluation and treatment in order to prevent permanent joint damage or harm to the health of the patient. Many other types of arthritis may be monitored carefully for progression of symptoms and signs and treated with a basic program even when the definitive diagnosis is not immediately apparent.

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Rubella arthritis occurs primarily in women either while the rash is present or two to four weeks after a vaccination. It involves fingers, knees and wrists symmetrically, and it may cause carpal tunnel syndrome. It usually lasts no longer than four weeks without recurrence. A rare patient, however, will have recurrences for up to five years.[16]

Acute rheumatic fever is uncommon today and the disease manifestations have changed in both adults and children to predominantly arthritis and fever. Usually, lower extremity joints are involved with a migratory or additive pattern and much periarticular reaction.[17]

Systemic lupus erythematous is primarily a disease of young women although all age groups and men may be affected. Joint complaints occur in almost all patients at some time, frequently early, but there may be few signs of inflammation other than tenderness. Usually, the arthritis is nondeforming and effects the hands, knees, wrists and feet symmetrically. The absence of extra-articular signs and symptoms does not rule out the diagnosis and continued surveillance is essential for establishing the diagnosis.

Although typically a chronic disease, rheumatoid arthritis remains the most common cause of acute polyarticular arthritis occurring in any age

TABLE 2
CHRONIC MONARTICULAR ARTHRITIS

Final Diagnosis	*Percent of Total Patients*
Rheumatoid arthritis	22
Degenerative joint disease	20
Infection	10.5
Pigmented villonodular synovitis	10.5
Osteochondromatosis	9
Nonspecific synovitis	28
	100

group. A small percentage of RA patients may have one or two episodes with acute onset of symmetrical polyarthritis lasting for less than a year and followed by permanent remission. The hands (proximal interphalangeal and metacarpophalangeal joints), wrists, elbows, shoulders, temporomandibular joints, knees, tarsal joints and metatarsophalangeal joints are frequently affected. The cervical spine and hips also may be involved.

Psoriatic arthritis usually is accompanied by typical skin lesions although arthritis may precede skin involvement in 16% of patients.[18] Almost all patients have nail involvement with pitting, thickening and onycholysis. The arthritis may be symmetrical in small joints similar to rheumatoid arthritis; it may affect the distal interphalangeal joints asymmetrically; or it may have oligoarticular (one to three joints) asymmetrical involvement.

Inflammatory bowel disease arthritis usually involves large joints of the lower extremities, especially knees and ankles, and usually three or less at a time. Attacks are usually coincident with exacerbations of bowel symptoms and seldom last more than two months. A history of back pain should be sought in both psoriatic and inflammatory bowel disease arthritis as they may be associated with sacroiliitis and ankylosing spondylitis.

Hepatitis B arthritis is often associated with morning stiffness, an urticarial or maculopapular rash, symmetrical arthritis of the hands and feet (including the distal interphalangeal joints) and occasionally large joints.[5] There is marked inflammation of joints and periarticular tissue. Usually, the arthritis precedes jaundice and lasts no longer than six weeks. However, some patients may never develop jaundice or even elevation of liver enzymes.

Serum sickness occurs less often today because of the infrequent administration of foreign proteins. Antigen-antibody complexes resulting from administration of any drug may occur, however, usually from three to 14 days after the drug is given. Arthritis in any joint, urticaria or other rash, and fever may occur. Even if no known drug has been given, these symptoms may occur when small amounts of a drug are ingested unknowingly, such as in milk contaminated with small amounts of penicillin.

Gout and pseudogout may occur as acute polyarticular arthritis and one should be aware of the possibility. What is thought to be a rheumatoid nodule may, in fact, be a tophus, and a biopsy may provide a diagnosis. (Whenever the presence of uric acid needs to be ruled out, the tissue must be fixed in absolute alcohol in order that the crystals not dissolve).

Chronic Monarticular Arthritis

Chronic monarticular arthritis is frequently a diagnostic problem. In the absence of typical extra-articular features, x-ray changes, laboratory studies and positive culture results, it must be diagnosed by biopsy. Even then, however, the diagnosis frequently will be "nonspecific synovitis." A study of 76 adult patients with chronic monarticular arthritis, all of whose joints were biopsied, gave the diagnoses noted in Table 2.[21] Three of the 21 patients in the last category went on to develop polyarticular RA. Other possible diagnoses included traumatic changes, neuropathic joint, Reiter's syndrome, psoriatic arthritis, pseudogout and others.

The knee is the most common joint affected and is followed (but not closely) by the ankle. As with acute monarticular arthritis, infection must be ruled out initially with synovial fluid analysis and culture and, subsequently, with closed needle or open biopsy if necessary. Arthroscopy may provide diagnostic information for large joints. A skin test for tuberculosis should always be placed and is usually positive in the presence of tuberculous arthritis.

Chronic Polyarticular Arthritis

Again, the age of the patient, the distribution of involved joints, the degree of inflammatory involvement and the presence of extra-articular symptoms and signs will provide important clues for the diagnosis of chronic polyarticular arthritis. Statistics may provide some help. Approximately 4% of the adult population in this country has RA and the prevalence of "probable RA" increases to 10% in people over 65 years of age.[1] Women are affected much more frequently than men prior to age 65, after which the incidence is twice as frequent in women. By the age of 75 years, 85% of people usually have DJD in the large weight-bearing joints.[1] DJD should be carefully distinguished from RA when the characteristic hand involvement in the hereditary form of DJD is present. This consists of bony swellings of the distal interphalangeal joints known as Heberden's nodes and of the proximal interphalangeal joints known as Bouchard's nodes and should not be confused with inflammatory articular tissue swelling.

Pseudogout also is a very common form of chronic polyarticular arthritis that occurs in approximately 5% of the adult population.[4] It may be confused with RA when the wrist and metacarpophalangeal joints are involved, with DJD when the knees and hips are involved, and with gout when the ankles and feet are affected.

Ankylosing spondylitis is a type of chronic polyarthritis that involves the sacroiliac joints early in the course of the disease and is followed by a variable degree of spine involvement with ultimate fusion of the vertebrae and costovertebral joints. Peripheral joint involvement is most frequently found in the hips, shoulders and knees. Men are affected more frequently and more severely than women, but the disease occurs in persons of both sexes with a prevalence of more than 1% of the adult population in this country.[1]

Other less common forms of chronic polyarthritis include Reiter's syndrome, psoriatic arthritis, chronic gout, SLE and other connective tissue diseases.

Other Aspects of Joint Involvement

In addition to classifying arthritis on the basis of the number of joints involved and whether the duration of involvement is acute or chronic, knowledge of certain predilections for joint involvement by specific types of arthritis may also facilitate making a diagnosis.

For example, distal interphalangeal joint involvement of the hands occurs in DJD where Heberden's nodes may be red, swollen and painful prior to becoming bony and painless prominences, in trauma-related degenerative arthritis, in psoriatic arthritis, in Reiter's syndrome, in chronic sarcoid joint disease, in gout and in Hepatitis B arthritis.

Sausage digits (swelling of the entire digit with cutaneous or periosteal involvement) occur in Reiter's syndrome, psoriatic arthritis, scleroderma and MCTD. Symmetrical involvement of all four digits is more frequent in the connective tissue diseases, whereas other types are more likely to be asymmetrical.

There are several types of arthritis that frequently affect only the ankle and knees. These include the arthritis of inflammatory bowel disease, hypertrophic osteoarthropathy, acute sarcoid arthritis, erythema nodosum of other causes and Reiter's syndrome.

Finally, some arthritides that may primarily involve the axial joints (spine, shoulders, hips) include ankylosing spondylitis, ochronosis (knees usually affected, too), DJD, psoriatic arthritis, Reiter's syndrome, and the arthritis of inflammatory bowel disease.

Early Diagnostic Approaches

It should be apparent that laboratory studies are not of primary importance in the initial phase of making a diagnosis of most types of arthritis. The potential risk of the disease to the patient can be determined by the history and physical examination which should indicate whether the problem is local or systemic, inflammatory or noninflammatory and whether infection is a possibility and whether the tempo of the disease is stable, slowing or accelerating. Thus, a careful history and thorough physical examination usually can focus the physician's attention on the correct category of disease and a limited number of specific diagnostic possibilities. This permits the physician to pursue a selected list of laboratory tests and/or procedures which avoids unnecessary risk and expense for the patient.

Infectious arthritis should be suspected whenever there is fever, severe monarticular or oligoarticular movement, a young sexually active patient, a distant site of active infection or an immunocompromised patient with new arthritis or exacerbated chronic arthritis. X-rays may rule out evidence of trauma, previous arthritis (damaged joints are more susceptible to infection than normal joints) or chronic infection. Other laboratory tests should include blood cultures, a complete blood count, an erythrocyte sedimentation rate and urethral, rectal, cervical and pharyngeal cultures if gonococcal arthritis is suspected.

When joint infection is suspected, the joint should be aspirated. There are very few contraindications to joint aspiration, the most important one being that infected skin (e.g., cellulitis) or an infected bursa overlying a joint should not be

TABLE 3
SYNOVIANALYSIS: TYPES OF STUDIES

1. Gross analysis
   a. Amount of fluid
   b. Color (clear, yellow, purulent)
   c. Clarity (transparent, translucent, opaque)
   d. Viscosity (high, low)
   e. "Mucin" clot (good, fair, poor)
2. Microscopic
   a. White cell concentration (normal $< 180/mm^3$)
   b. Differential leucocyte count
   c. Wet smear inspection by polarized light
3. Microbiologic
   a. Gram and special stains
   b. Culture
4. Chemical
   a. Glucose
   b. Protein (normal < 3 gm%)

penetrated in order to enter a joint. Psoriatic lesions overlying a joint also should not be entered since they may harbor bacteria and contaminate the joint.

Aseptic technique is essential. The skin should be cleansed with alcohol followed by an iodine-containing preparation. Lidocaine may be used for local anesthesia, but it should not be injected into the synovial space because it may inhibit bacterial growth. Once fluid is obtained, its color and clarity should be noted and it should be hand-carried in the syringe to the laboratory in order that appropriate smears and cultures for aerobic and anaerobic bacteria, fungi and acid fast bacteria may be made immediately. In addition to the smears and culture, the most important tests are a white cell count and a fluid analysis to look for crystals. If enough fluid is obtained, a complete synovianalysis should be performed (Table 3).[22] Quantitation of protein and glucose may also aid in determining the presence of inflammation. While six hours or more may be necessary for stabilization of the synovial fluid glucose after a meal, if the synovial fluid glucose is 40 mg% less than a simultaneously drawn serum glucose, infection should be a strong consideration.[22]

If fluid cannot be obtained from a joint that is suspected of being septic, closed needle biopsy or open biopsy should be considered. Also, if tumor is suspected, the synovium should be biopsied.

When fluid is obtained from a possible septic joint but the gram stain is negative, a regimen of antibiotics should be started pending culture results. The choice of antibiotics usually can be correctly selected on the basis of the presence of a known primary site of infection or the age of patient (Table 4).[19] Also, a joint that is inflamed out of proportion to other active joints in an RA patient is likely to be infected with *Staphylococcus aureus* and should be treated accordingly pending culture results.

If pseudogout or gout is a possibility, aspiration and analysis of synovial fluid is also indicated. There is little reason to draw a serum uric acid level immediately since the result will not affect the decision for therapy unless fluid cannot be obtained from the joint. The diagnosis of gout should be made on the basis of finding sodium urate crystals in the synovial fluid and the defini-

TABLE 4
ANTIBIOTIC SELECTION FOR SEPTIC ARTHRITIS BASED ON PATIENT'S AGE AND GRAM-STAIN FINDINGS*

Age (Years)	*Gram Negative Bacilli*	*Gram-Negative Cocci*	*Gram-Positive Cocci*	*No Organism Seen*
<½	Gentamicin (*Enterobacteriaceae* or *Ps. aeruginosa*)†	Penicillin G (*N. gonorrhoeae*)	Nafcillin (staphylococci or streptococci)	Nafcillin and Gentamicin
½ to 2	Ampicillin (*H. influenzae*)	As above	As above	Ampicillin (*H. influenzae* or streptococci)
2 to 14	Gentamicin (*Enterobacteriaceae* or *Ps. aeruginosa*)	As Above	As above	Nafcillin
15-39	As above	As above	As above	Nafcillin (staphylococci, *N. gonorrhoeae*)
>40	As above	As above	As above	Nafcillin

* Gentamicin should be added for patients with joint trauma, malignancy, addiction.
† Presumed identity in parentheses.

tive diagnosis of pseudogout is based on the identification of calcium pyrophosphate dihydrate crystals.[4] An ordinary microscope may be easily adapted for this purpose[23] by placing polarizing filters above the objective (analyzer) and below the condenser over the light source (polarizer). A compensator may be made by applying cellophane tape to each surface of a glass slide and placing it over the polarizer. The slide is rotated until the field is red. Urate crystals from gout patients appear needle-like and usually are seen within polymorphonuclear leucocytes. When viewed under compensated polarized light, they appear to be bright yellow when their axis is parallel to the length of the compensator. Calcium pyrophosphate dihydrate crystals are usually rhomboid-shaped, are found within leucocytes and appear as a weak blue when their axis is parallel to the compensator.

X-rays of gouty joints are usually not helpful until the disease has been present for at least ten years when the typical "punched out" lytic lesions at the joint margins are found.[7] The typical x-ray changes of pseudogout, fine linear calcifications of the articular cartilage,[4] may or may not be present and are most frequently found in the menisci of he knee and the fibrocartilage of the wrist. Further evaluation to determine what form of chronic therapy for gout may be indicated, if any, hould follow recovery from the acute attack.

When a joint is severely inflamed and the clincal course is not suggestive of infection and fluid cannot be obtained, the patient should be watched closely. Serial x-rays should be obtained nd a biopsy should be done if there is early development of destructive change without a dignosis.

Another indication for aggressive diagnostic valuation and treatment of the new rheumatic isease patient is life-threatening involvement or apidly progressive deterioration of some organ ystem due to any of the connective tissue disases such as SLE, MCTD, polymyositis, scleroerma, dermatomyositis, vasculitis or even RA. ome examples of such situations include central ervous system involvement with seizures, sychosis or coma or rapidly progressive renal eterioration in SLE, severe pericarditis with hreat of tamponade in MCTD or RA, hypertenve renal crisis in scleroderma or severe pharyneal and respiratory muscle involvement with otential aspiration or respiratory failure due to nflammatory polymyositis. But even in these ases where aggressive therapy is indicated, there may not be time to await the results of serologic studies such as a fluorescent antibody test, a rheumatoid factor or serum complements (C_3, C_4, total hemolytic complement). Other more invasive studies such as renal biopsy or muscle biopsy may have to be pursued on the basis of the nature of the organ-system involvement and the patient's course.

Most other diagnoses that are neither initially obvious nor of immediate threat to the patient's health after a careful preliminary evaluation (including a complete history, physical examination, complete blood count, sedimentation rate and x-ray(s) of the most severely involved joint(s)) need not be made immediately. Indeed within eight weeks, several types of arthritis will have resolved, leaving no residual as in many of the acute monarticular arthritides discussed above.

If the arthritis persists or, especially, if the disease appears to be serious and potentially leading to loss of function or deformity, *more aggressive steps should be taken* to make a diagnosis so that appropriate specific therapy can be started. Ancillary laboratory tests such as those for rheumatoid factor, fluorescent antinuclear antibodies, specific antinuclear antibodies (i.e. anti-DNA), B-27 antigen, antistreptolysin 0 titer and Hepatitis B antigen are appropriate when there is reason to suspect a specific disease, but these tests are often more confirmatory than diagnostic. Further serologic or other diagnostic studies such as joint aspiration, joint scan, or synovial biopsy may ultimately be required to assist in making the diagnosis when it remains elusive despite continued symptoms and signs. Frequently, however, the appearance of new articular or extra-articular symptoms and signs or the continuation, disappearance or recurrence of certain signs will make the diagnosis apparent.

Early Management of Arthritis

When a patient complains of recent onset of arthritis, early decisions regarding appropriate treatment can be made even in the absence of the specific diagnosis. Except in the cases in which early aggressive management is required, as mentioned above, the basic program of arthritis management can be modified to apply to most rheumatologic diseases. The goals of the basic program are (1) to relieve pain and stiffness, (2) to reduce or suppress inflammation, (3) to preserve joint and muscle function, and (4) to prevent deformity due to cartilage damage, contractures or ankylosis.

"An Approach to Patients With Recent Onset of Arthritis" has been published in MISSOURI MEDICINE in two parts. Part I appeared in the June, 1981 issue. Reprints will present the article and references in their entirety.

There are four major components of the basic program. The first is patient education. The arthritis patient must be informed as well as possible about the nature of the disease and its consequences because the patient's cooperation in the entire therapeutic program is essential for success. Family members also should be educated in order to attempt to alleviate guilt feelings in the patient that derive from debility and the need for altering the previous lifestyle.

Rest, either in the form of local articular rest or systemic rest, is the second component of the basic program. The patient with systemic inflammatory disease must set aside periods of time during the day to take a nap or, at least, break from routine activity to recover from fatigue. Local articular rest may be provided by the above or by the use of splints for affected joints, a cane, crutches or a brace. Acutely inflamed or injured joints, tendons or ligaments may require total immobilization for a maximum of three weeks.

Physical therapy and occupational therapy are also necessary aspects of care of the arthritis patient. Physical therapy includes many modes of treatment that include the use of superficial moist or dry heat applications such as with a warm, damp towel, a bath or a heating pad. Heat may help to reduce pain, allow relaxation of muscles and alleviate stiffness. Some patients benefit from cold compress applications (such as with ice water in a plastic bag wrapped with a towel) for reduction of pain and swelling. Applications of heat or cold for intervals longer than 20 to 30 minutes usually provide little added benefit.

When some degree of pain relief is attained, careful range of motion exercises should be initiated. It is wise to ask a physical therapist to instruct the patients how to perform the exercises to ensure that they are done correctly and not excessively so as not to harm an inflammed or damaged joint or soft tissue. Occupational therapists are trained to assist the patient in adjusting the daily routine to coincide with the limits incurred by the rheumatologic deficits. They help patients organize their schedules to allow for periods of rest and physical therapy and they evaluate the activities of daily living in order to identify areas of difficulty which may be simplified by performing tasks differently or by using adaptive equipment such as elevated toilet seats or bath tub bars. Usually, the fabrication of splints is done by the occupational therapist whereas instruction in the use of a cane, crutches or cervical traction is handled by the physical therapist.

Medication, such as aspirin, other nonsteroidal anti-inflammatory drugs and analgesics, is the fourth component of the basic program. In most cases, aspirin in either analgesic doses up to 2.6 gm per day or anti-inflammatory doses of 4 gm or greater daily are sufficient to relieve pain and stiffness. Enteric coated aspirin is recommended because of its reduced potential for gastric upset and ulcer formation. Regardless of the effect sought, the aspirin should be taken regularly and the physician should warn the patient of the potential side effects that include gastrointestinal upset, tinnitus and hearing loss. In order to achieve an anti-inflammatory effect, a serum salicylate level of approximately 20 mg% usually is necessary. Other nonsteroidal anti-inflammatory drugs also may be used, but they frequently have little benefit over aspirin except in acute gout and the spondylitides where indomethacin may provide greater relief. Intravenous colchicine also may be used for acute gout, but high dose oral colchicine therapy is discouraged because it is no more effective than the aforementioned treatments and the resulting abdominal cramping and diarrhea are unpleasant. Aspirin should be avoided in all gout patients because of its effect on uric acid excretion. Although medications are important, they will frequently fail to control the patient's symptoms unless the other measures mentioned above are also employed. This should be stressed to the patient.

In summary, the initial approach to the patient with recent onset of arthritis should include a complete history and physical examination. In most cases, careful attention to musculoskeletal symptoms and signs along with other aspects of the medical history and physical findings will yield a specific diagnosis or an educated suspicion of what the problems may be.

In cases in which the immediate health of the patient is at risk, an aggressive approach to diagnosis should be taken. But in most patients, even when the diagnosis is not immediately apparent, meticulous follow-up with attention to the development of new symptoms and physical findings and observation of the progression of the course of the disease will ultimately reveal the diagnosis without undue harm to the patient or the need for extensive laboratory evaluation.

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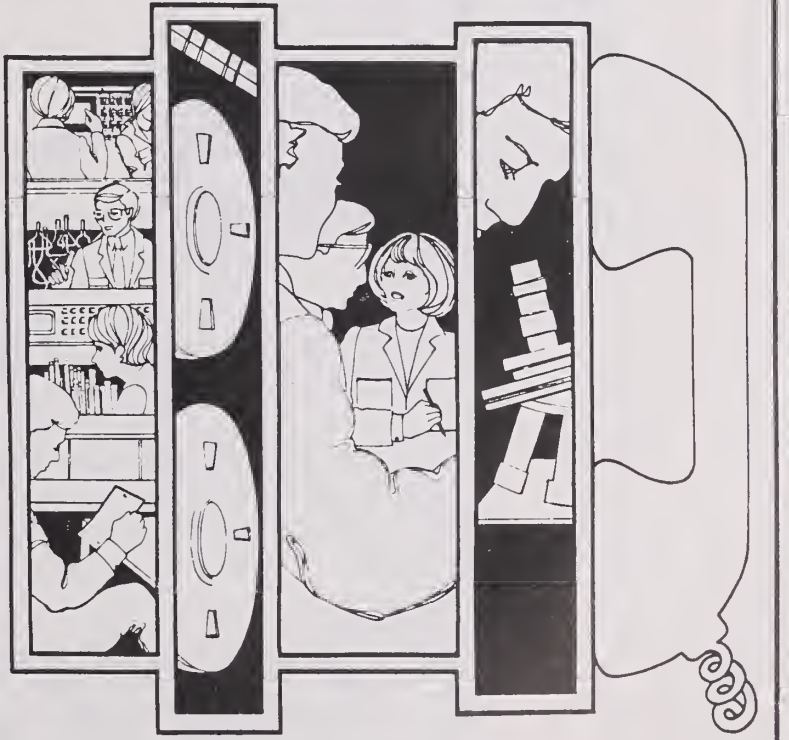
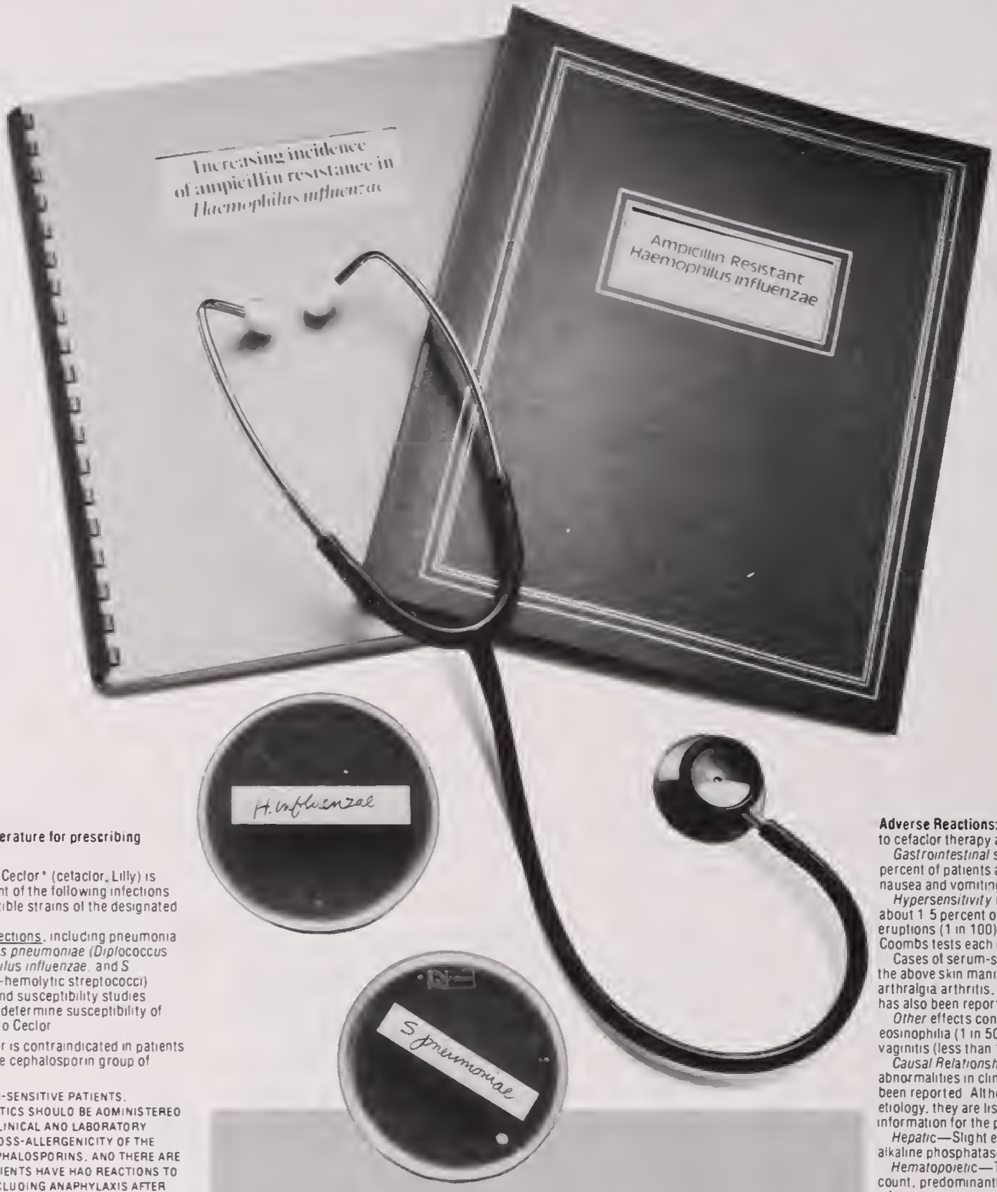


An added complication… in the treatment of bacterial bronchitis*


Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.$^{1-6}$

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms.

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e g pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients)

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

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* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae* [8]

Note. Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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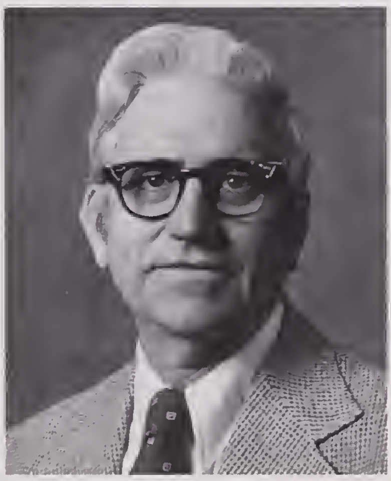
President's Message

Community Leadership by Physicians

The physician as a community leader has changed somewhat in the last several years, probably because of the physicians themselves more than anyone else. In days gone by, when the physician usually was the best educated person in the community, his opinion was sought out, respected and utilized.

At the present time, there are many well-educated people in most of our communities, but none who command more respect than physicians. Your community can use you — your community is good to you. It is good to all physicians and, in this day and age, we all need to put a little something back into our communities.

Where can you do community service? There are certain arenas in which everyone is welcome — anyone with children is welcome in the PTAs. Political parties would respect your opinion no matter what your affiliation. Service clubs always need physicians to assist with services in their local community. And, don't forget the local medical society.


Eugene T. Hansbrough, M.D.

Many hobby clubs offer good ways to become acquainted and move about town, but they are really not of a community service nature. They include such groups as investment clubs, cattle breeders' associations, etc. Many times, these organizations take an inordinate amount of our time and leave us with very little to be proud of in regard to what happens in our community.

Community service also provides a good place for us to listen — a feature at which we physicians as a group are not too adept. So, try to put a little bit of yourself back into your community — it has done a lot for you.

Your MSMA-Sponsored Insurance Programs

These Programs are especially designed for MSMA members' protection needs.

• Personal Disability Income

Benefits are available up to $2,166 per month. Life Time Accident/to Age 65 Sickness Coverage — flexible waiting periods available from seven days up to one year — the plan is applicable for the Individual or Incorporated Physician. Coverage for private flying is available.

This individual contract with Special Renewal Guarantees is the ideal foundation for your Disability Income Protection Program.

• Office Overhead Expense

Disability Insurance Coverage up to $3,000 per month to pay your continuing office expenses while you are unable to work due to illness or injury. Benefits are payable after 30 days continuous disability with a maximum benefit period of 24 months.

Your premium is a tax-deductible business expense — your individual contract has Special Renewal Guarantees — benefits may be assigned to your corporation.

• Accidental Death and Dismemberment

Up to $150,000, 24-hour worldwide coverage while at work or play — including permanent total disability benefit. Coverage on spouse and children available — also your employees. No medical history required — low group cost.

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Pays you a Cash Benefit for each day of hospital confinement due to injury or illness. . . . Pays *in addition to* other insurance you may have . . . your choice of amount $20.00 to $100.00 Daily Benefit. Family coverage available.

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MSMA Auxiliary

AMA Auxiliary Convention

The American Medical Association Auxiliary convention was held on June 7-10 at the Drake Hotel in Chicago. The MSMA Auxiliary was fortunate to have one presidential delegate, five delegates, one alternate delegate and one member attending the proceedings this year. Workshops were again held for state chairmen and any interested members in the following areas: AMA-ERF, Health Projects, Legislation, Membership and the Resident Physician/Medical Student Spouse. Three of our state chairmen were able to attend these meetings and bring back useful information to aid our county auxiliaries in these areas.

Reference committee hearings covered these proposals: Parliamentarian appointed for meetings, revised system of nominations and election of officers, optional AMA Auxiliary dues category for widows and spouses of retired physicians, leadership confluence eligibility, Shape Up For Life Campaign, community support for infant and child passenger safety programs, support of home health care services in the community, use of safety belts and safety seats, child safety restraints, and public awareness of organ donation.

The House of Delegates was privileged to hear these speakers during the convention: Sen. Paula Hawkins; Mr. George Will, contributing editor of *Newsweek;* Dr. Robert S. Eliot, chairman, Department of Preventive and Stress Medicine; and Dr. and Mrs. Gordon H. Deckert.

Mrs. Jerry Meyer
President

The Missouri delegation had the pleasure of visiting with the wives of the MSMA delegation and special guests at breakfast on Monday, June 8. This event gives both delegations an opportunity to share their various deliberations in a relaxed atmosphere.

The special entertainment for this convention was on Tuesday evening when participants had the option of viewing Sandy Duncan in *Peter Pan*.

Our MSMA Auxiliary is especially proud of three outstanding members who represent our state on the national level. Mrs. William R. McPhee of Kansas City is the newly elected North Central Region Vice-President, Dr. Hubert A. Ritter of St. Louis is president of the American Medical Association Education and Research Foundation, and Dr. George E. Thoma of St. Louis is newly elected to the AMA Committee for Continuing Medical Education.

Our delegates returned from the convention ready to start the auxiliary year with vim, vigor and vitality and to assist the MSMA in any way possible.

medical melange

Notes of interest from Here . . . . and There

Dr. John F. Rutledge, Festus, was honored recently for his 61 years of service as a physician at a meeting of the Festus-Crystal City Rotary Club. He received a plaque and silver tray from his fellow Rotary Club members and a copy of a Missouri House of Representatives resolution applauding him as "an exemplary citizen" for a "lifetime of public service." The House resolution, introduced by Rep. Howard Garrett of Festus, states that Dr. Rutledge is "the oldest practicing physician in the state." Dr. Rutledge opened his office in Crystal City in 1928 and later moved it to Festus.

Approximately 450 persons attended a retirement reception at St. Francis Hospital in Maryville in May for **Dr. E. D. Imes** who retired from medical practice on July 1. From 1951 to 1957, Dr. Imes was on the State Board of Medical Examiners. He was president of the Board during his last year. He has served on the MSMA's medical economics and other committees, has been a delegate to the House of Delegates, served as vice-speaker and was speaker of the House of Delegates in 1971-1973. Dr. and Mrs. Imes now live in Bull Shoals, Ark.

Another MSMA member, **Dr. H. B. Ivy** of Springfield, has retired. An ophthalmologist, Dr. Ivy has been practicing in Springfield since 1954. He received his M.D. degree in 1945 from the University of Kansas and completed his training in ophthalmology at Tulane University and Henry Ford Hospital. Dr. Ivy has served as a vice-president of the MSMA and as a delegate to the MSMA House of Delegates.

Dr. Jack Wiles, West Plains, has been selected as a Paul Harris Fellow by the West Plains Rotary Club. The presentation of a plaque and medallion was made by Dr. Wiles' son, Tom Wiles, during the club's annual installation of officers banquet on June 30. To be a Paul Harris Fellow, one must donate at least $1,000 to the Rotary Foundation in a designated individual's name. Dr. Wiles is Councilor for the MSMA Ninth District.

Dr. A. W. Eklund, who has served the community of Pleasant Hill for 35 years, retired on July 1. Dr. Eklund received his M.D. degree at the University of Minnesota in 942, interned at General Hospital in Kansas City and served his residency at St. Luke's Hospital in 1944. After serving in the U.S. Army, he established his practice in Pleasant Hill.

Dr. Jack L. Stuber, has been elected president-secretary of the Greater Kansas City Radiological Society for the 1981-1982 academic year. Other officers elected are **Dr. Edwin Herman,** president-elect treasurer, and **Dr. Ira L. Cox,** historian and treasurer-elect.

Pioneers in Medicine For the Family

BOOTS PHARMACEUTICALS, INC.

Operating in the U.S. since 1977, Boots is a world-wide leader in pharmaceutical research and manufacture. Boots has directed its efforts toward providing products useful in the practice of family medicine. Some of our better known products are Lopurin™ , Ru-Tuss® and Ru-Vert® . This advertisement highlights four other products particularly useful for the family.

F-E-P CREME® • SU-TON® • TWIN-K® • TWIN-K-Cl™

For the Majority of Steroid-Responsive Dermatoses* Seen in Family Practice

F-E-P CREME®

(Iodochlorhydroxyquin – Pramoxine HCl – Hydrocortisone)

The 4 in 1 Corticosteroid Cream

Anti-inflammatory, antifungal, antibacterial actions, and, uniquely, a topical anesthetic for immediate relief of the itching or burning that frequently accompanies skin problems. One size (½ ounce), one strength for ease of prescription.

*This drug has been evaluated as possibly effective for these indications. See prescribing information on last page of this advertisement.

For the Geriatric Patient

SU-TON®

Liquid Tonic

A pleasant tasting prescription tonic containing iron, vitamins, minerals, an analeptic and 18% alcohol. Ideal for those who may benefit from vitamin deficiency prevention. Just one tablespoon before each meal.

Each 45 ml (3 tablespoonfuls) contains:	
Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

See prescribing information on last page of this advertisement.

Boots Pharmaceuticals, Inc.
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or Potassium Supplementation mproved Compliance…

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ach 15 ml supplies 20 mEq of potassium ions as a combination of potassium luconate and potassium citrate in a sorbitol and saccharin solution.

he good tasting potassium supplement

- Designed for prophylactic and therapeutic use with diuretics and adrenocorticoids.
- Pleasant taste and convenient dosage aid patient compliance.

The organic salt of potassium can be given as a liquid without producing significant gastric symptoms and without an untoward effect on the mucosa of the small intestine.[1]

Beeson-McDermott, Textbook of Medicine, 15th Ed. 1979, W.B. Saunders Co., Philadelphia, page 1959.

In Cases with Chloride Deficiency…

TWIN-K-Cl™

Each 15 ml supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride in a sorbitol and saccharin solution.

The good tasting potassium supplement with chloride

- In hypokalemic hypochloremic alkalosis, chloride ions are required. Twin-K-Cl is specially formulated to be a good tasting chloride containing potassium supplement.
- Contains no potassium chloride. Twin-K-Cl is a carefully balanced combination of organic potassium salts plus ammonium chloride.
- In hypochloremic patients, potassium should be provided as the chloride salt, or chloride ion must be made available in some other form, such as ammonium chloride or sodium chloride.[1]

See prescribing information on last page of this advertisement.

F-E-P CREME

DESCRIPTION

F-E-P Creme is a topical water soluble anti-inflammatory, anesthetic preparation intended for treatment of various inflammatory skin disorders. The drug contains the following active ingredients:

Iodochlorhydroxyquin	3.0%
Pramoxine Hydrochloride	0.5%
Hydrocortisone	1.0%

INDICATIONS AND USAGE

> Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows: "Possibly" effective: Contact or atopic dermatitis; impetiginized eczema; nummular eczema; infantile eczema; endogenous chronic infectious dermatitis; stasis dermatitis; pyoderma, nuchal eczema and chronic eczematoid otitis externa, acne urticata; localized or disseminated neurodermatitis; lichen simplex chronicus; anogenital pruritus (vulvae, scroti, ani), folliculitis; bacterial dermatoses; mycotic dermatoses such as tinea (capitis, cruris corporis, pedis); moniliasis; intertrigo. Final classification of the less-than-effective indications requires further investigation.

Pramoxine Hydrochloride promptly relieves pain and itch. This compound may be used safely on the skin of those patients sensitive to the "caine" type local anesthetics.

CONTRAINDICATIONS

Hypersensitivity to F-E-P Creme, or any of its ingredients or related compounds; lesions of the eye; tuberculosis of the skin; most viral skin lesions (including herpes simplex, vaccinia and varicella).

WARNINGS

This product is not for ophthalmic use.

In the presence of systemic infections, appropriate antibiotics should be used.

USE IN PREGNANCY

Topical steroids have not been reported to have an adverse effect on pregnancy. However, fetal abnormalities have been produced in pregnant laboratory animals that have been exposed to large doses of topical corticosteroids. Drugs of this class should not be used extensively during pregnancy.

PRECAUTIONS

F-E-P Creme may be irritating to the skin in some patients. If irritation occurs discontinue therapy. Staining of clothes or hair may also occur with use of this preparation. Although systemic toxicity has not been reported with this drug, adrenal pituitary suppression is possible, especially when the drug is used extensively or kept under an occlusive dressing for a prolonged period.

Iodochlorhydroxyquin can be absorbed through the skin and interfere with thyroid function tests. Therapy with this preparation should stop at least a month before performance of these tests. The ferric chloride test for phenylketonuria (PKU) can be positive if F-E-P Creme is on the diaper or in the urine.

Prolonged use of this drug may result in an overgrowth of non-susceptible organisms requiring appropriate therapy.

ADVERSE REACTIONS

Skin rash or hypersensitivity may occur following topical application.

The following local adverse reactions have been reported with topical corticosteroids, especially under occlusive dressings: burning, itching, irritation, dryness, folliculitis, hypertrichosis, acneiform eruptions, hypopigmentation, perioral dermatitis, allergic contact dermatitis, maceration of the skin, secondary infection, skin atrophy, striae, miliaria. Discontinue therapy if untoward reactions occur.

DOSAGE AND ADMINISTRATION

Apply a thin layer of the drug to affected parts 3-4 times daily.

Note:

1. F-E-P Creme is distributed with 3.0% iodochlorhydroxyquin for use when antibacterial/antifungal activity is desired.
2. F-E-P Creme (Plain) is the regular formulation, but without iodochlorhydroxyquin.

Both of these preparations contain pramoxine hydrochloride, which has topical anesthetic properties. Pramoxine is not chemically related to benzoic acid or amide type topical anesthetics. Patients can tolerate pramoxine although they may be sensitive to other "caine" type of topical or local anesthetics.

HOW SUPPLIED

F-E-P Creme	½ ounce (15 gm) tubes	NDC 0524-0026-51
F-E-P Creme Plain	½ ounce (15 gm) tubes	NDC 0524-0025-51

Federal law prohibits dispensing without a prescription.

July 1980

SU-TON®

DESCRIPTION

Forty-five milliliters of SU-TON contain the following ingredients:

Pentylenetetrazol	30 mg
Niacin	50 mg
Vitamin B-1	10 mg
Vitamin B-2	5 mg
Vitamin B-6	1 mg
Vitamin B-12	3 mcg
Choline	100 mg
Inositol	50 mg
Manganese (as Manganese Sulfate)	1 mg
Magnesium (as Magnesium Sulfate)	2 mg
Zinc (as Zinc Sulfate)	1 mg
Iron (as Ferric Pyrophosphate, Soluble)	22 mg
Alcohol	18%

INDICATIONS AND USAGE

SU-TON contains pentylenetetrazol which may be helpful in the older patient as an analeptic agent when mental confusion and memory defects are present. SU-TON also contains vitamins, trace minerals, and iron, for those patients who may benefit by preventing the development of a deficiency.

CONTRAINDICATIONS

Epilepsy, convulsive disorders or known history of sensitivity to any of the listed active ingredients.

WARNINGS

The safety of this preparation during pregnancy and lactation has not been established. Use of this drug requires that the physician evaluate the potential benefits of the drug against any possible hazard to the mother and child.

PRECAUTIONS

Although there are no absolute contraindications to pentylenetetrazol, it should be used with caution in epileptic patients or those known to have a low convulsive threshold or a focal brain lesion. Caution should be exercised when treating patients with high doses of SU-TON who have heart disease. While pentylenetetrazol does not act directly on the myocardium, the results from central vagal stimulation could cause bradycardia.

ADVERSE REACTIONS

Pentylenetetrazol in high doses may produce toxic symptoms typical of central nervous system stimulants, which act on the higher motor centers and the spinal cord. Convulsions resulting from this drug are spontaneous and are not induced by external stimuli. They usually last for several minutes and are followed by profound depression and respiratory paralysis. Death has been reported from the ingestion of 10 grams of pentylenetetrazol.

DRUG ABUSE

Drug dependence has not been reported with SU-TON.

OVERDOSAGE

Signs and symptoms of acute overdose may be due principally from overstimulation of the central nervous system and from excessive vasodilatation with resulting autonomic nervous system imbalance. The symptoms may include the following: vomiting, agitation, tremors, hyperreflexia, sweating, confusion, hallucinations, headache, hyperpyrexia, tachycardia. Treatment consists of appropriate supportive measures. If signs and symptoms are not too severe and the patient is conscious, gastric evacuation may be accomplished by induction of emesis or gastric lavage.

Intensive care must be provided to maintain adequate circulation and respiratory exchange.

DOSAGE AND ADMINISTRATION

One tablespoonful (15 ml) 3 times a day 20-30 minutes before meals. This drug is not for use in children under 12 years of age.

HOW SUPPLIED

Bottles of 473 ml (16 fl oz) NDC 0524-0015-16

Federal law prohibits dispensing without prescription.

February 1980

TWIN-K

DESCRIPTION

Each 15 milliliter (one tablespoonful) supplies 20 mEq of potassium ions as a combination of potassium gluconate and potassium citrate in a sorbitol and saccharin solution.

INDICATIONS AND USAGE

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. This product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K (potassium gluconate and potassium citrate) is a palatable form of oral potassium replacement. It appears that little if any potassium gluconate-citrate penetrates as far as the jejunum or ileum where enteric coated potassium chloride lesions have been noted. Excessive, undiluted doses of TWIN-K may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K is not recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiographic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes. Treatment measures include:

1. Elimination of potassium containing drugs or foods.
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis
4. Use of exchange resins or peritoneal dialysis.

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly.

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 40 to 80 mEq of potassium ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED

Bottles of 1 pint (16 fl oz) NDC 0524-0021-16

CAUTION

Federal law prohibits dispensing without prescription.

July 1980

TWIN-K-Cl™

DESCRIPTION

Each 15 ml (one tablespoonful) supplies 15 mEq of potassium ions and 4 mEq of chloride ions as a combination of potassium gluconate, potassium citrate, and ammonium chloride, in a sorbitol and saccharin solution.

INDICATIONS

For use as oral potassium therapy in the prevention or treatment of hypokalemia which may occur secondary to diuretic or corticosteroid administration. It may be used in the treatment of cardiac arrhythmias due to digitalis intoxication.

Potassium and chloride are usually the salts of choice in the treatment of hypokalemia since chloride and potassium deficiencies are likely to be associated with each other.

CONTRAINDICATIONS

Severe renal impairment with oliguria or azotemia, untreated Addison's disease, adynamia episodica hereditaria, acute dehydration, heat cramps and hyperkalemia from any cause. The product should not be used in patients receiving aldosterone antagonists or triamterene.

WARNINGS

TWIN-K-Cl is a palatable form of oral potassium replacement. Excessive, undiluted doses of TWIN-K-Cl may cause a saline laxative effect.

To minimize gastrointestinal irritation, it is recommended that TWIN-K-Cl be taken with meals or diluted with water or fruit juice. A tablespoonful (15 ml) in 8 ounces of water is approximately isotonic. More than a single tablespoonful should not be taken without prior dilution.

PRECAUTIONS

Potassium is a major intracellular cation which plays a significant role in body physiology. The serum level of potassium is normally 3.8-5.0 mEq/liter. While the serum or plasma level is a poor indicator of total body stores, a plasma or serum level below 3.5 mEq/liter is considered to be indicative of hypokalemia.

The most common cause of hypokalemia is excessive loss of potassium in the urine. However, hypokalemia can also occur with vomiting, gastric drainage and diarrhea.

Usually a potassium deficiency can be corrected by oral administration of potassium supplements. With normal kidney function, it is difficult to produce potassium intoxication by oral administration. However, potassium supplements must be administered with caution since, usually, the exact amount of the deficiency is not accurately known. Checks on the patient's clinical status and periodic EKG and/or serum potassium levels should be made. High serum potassium levels may cause death by cardiac depression, arrhythmias or arrest.

In patients with hypokalemia who also have alkalosis and a chloride deficiency (hypokalemic hypochloremic alkalosis), there will be a requirement for chloride ions. TWIN-K-Cl is recommended for use in these patients.

ADVERSE REACTIONS

Symptoms of potassium intoxication include paresthesias of the extremities, flaccid paralysis, listlessness, mental confusion, weakness and heaviness of the legs, fall in blood pressure, cardiac arrhythmias and heart block. Hyperkalemia may exhibit the following electrocardiograpic abnormalities: disappearance of the P wave, widening and slurring of the QRS complex, changes of the ST segment and tall peaked T waves.

TWIN-K-Cl taken on an empty stomach in undiluted doses larger than 30 ml can produce gastric irritation with nausea, vomiting, diarrhea, and abdominal discomfort.

OVERDOSAGE

The administration of oral potassium supplements to persons with normal kidney function rarely causes serious hyperkalemia. However, if the renal excretory function is impaired, potentially fatal hyperkalemia can result. It is important to note that hyperkalemia is usually asymptomatic and may be manifested only by an increased serum potassium concentration with or without EKG changes:

Treatment measures include:

1. Elimination of potassium containing drugs or foods
2. Intravenous administration of 300 to 500 ml/hr of a 10% dextrose solution containing 10-20 units of crystalline insulin per 1000 milliliters.
3. Correction of acidosis
4. Use of exchange resins or peritoneal dialysis

In treating hyperkalemia, it should be noted that patients stabilized on digitalis can develop digitalis toxicity when the serum potassium concentration is changed too rapidly

DOSAGE AND ADMINISTRATION

The usual adult dosage is one tablespoonful (15 ml) in 6-8 fluid ounces of water or fruit juice, two to four times a day. This will supply 30 to 60 mEq of potassium ions and 8 to 16 mEq of chloride ions. The usual preventative dose of potassium is 20 mEq per day while therapeutic doses range from 30 mEq to 100 mEq per day. Because of the potential for gastrointestinal irritation, undiluted large single doses (30 ml or more) of TWIN-K-Cl are to be avoided.

Deviations from this schedule may be indicated, since no average total daily dose can be defined, but must be governed by close observation for clinical effects.

HOW SUPPLIED Bottles of 1 pint (16 fl oz)

NDC 0524-0022-16

MANUFACTURED & DISTRIBUTED BY

Boots Pharmaceuticals, Inc.

Shreveport, Louisiana 71106

Pioneers in Medicine For the Family

PAIN AND TENSION...
Double fault for weekend warriors
ACE THE ACHE
with

Equagesic®Ⓘⓥ

(meprobamate and ethoheptazine citrate with aspirin) Wyeth

Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EQUAGESIC—Abbreviated Summary

*INDICATIONS: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows
"Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
Final classification of the less-than-effective indications requires further investigation
The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g., alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION: An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants e g caffeine, Metrazol, or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress. Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

Wyeth Laboratories
Philadelphia, PA 19101
TM

Down with pain
Step up to reliable relief

for mild to moderate pain

Wygesic® (IV)

(65 mg propoxyphene HCl and 650 mg acetaminophen) Wyeth

More than twice as much acetaminophen as the leading combination plus a full therapeutic dose of propoxyphene...all in a convenient, economical single tablet.

WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers, alcohol or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE. Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants, including alcohol

ADVERSE REACTIONS The most frequent adverse reactions are dizziness sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation abdominal pain, skin rashes light-headedness headache weakness euphoria dysphoria and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol tranquilizers sedative-hypnotics, and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma pupillary constriction, and circulatory collapse In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported and apnea cardiac arrest and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia and abdominal pain, beginning shortly after ingestion and lasting for 12 to 24 hours However, early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice coagulation defects hypoglycemia encephalopathy coma and death may follow Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions

Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8 10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine which may cause anorexia nausea vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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MSMA Members Receive Physician's Recognition Award

One hundred and forty-five MSMA members qualified for the MSMA-AMA Physician's Recognition Award in May and June, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements. To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

May, 1981

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James D. Bennett, Kansas City
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June, 1981

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Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: Alta Bingham

Sept. 25-26	The Long Weekend: Cardiovascular Disease and Critical Care (Alameda Plaza Hotel)
Oct. 29-31	Annual Fall Clinical Conference — Kansas City Southwest Clinical Society (Alameda Plaza Hotel)
Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)
(1982)	
Jan. 16-23	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Steamboat Springs, Colo.)
Feb. 19-20	The Long Weekend: Medical Problems in the Patient Who Needs Surgery (Hyatt Regency Hotel)
Feb. 21-28	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Palm Springs, Calif.)
Feb. 28-Mar. 7	Traveling Medical Education Course — Kansas City Southwest Clinical Society (St. Thomas, U.S. Virgin Islands)
Mar. 18-20	Perspectives in Medical Care (Hyatt Regency Hotel)
Mar. 20-27	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Crested Butte, Colo.)
Mar. 31-Apr. 3	Update in Obstetrics and Gynecology (Alameda Plaza Hotel)
May 6-7	Surgical Problems — The Old and the New (Alameda Plaza Hotel)
June 5	Symposium on Physical Fitness (Crown Center Hotel)

Missouri Perinatal Association
P.O. Box 1431, Jefferson City 65102
Contact: Judy Sommers

Oct. 15-17	Third Annual Meeting — Missouri Perinatal Association (The Ramada Inn, Columbia)

University of Missouri School of Medicine
Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
Contact: William D. Bradshaw, M.D.

Sept. 10-11	Practical Problems for Primary Phys cians in Gastrointestinal, Hepatic a Pancreatic Disease
Oct. 2-4	Missouri Ear, Nose and Throat Socie Fall Meeting (Lodge of Four Seasons, Lake Ozark)
Oct. 15-16	Third Annual Perinatal Associati Meeting
Oct. 17	Third Annual Recent Advances i Clinical Ophthalmology Conference
Oct. 17	Seminar on Infant Development
Oct. 23-24	22nd Annual M.D. Day
Oct. 24	Annual Missouri Pathology Associa tion Meeting
Oct. 29-31	Third Annual Advances in Rheumato ogy Symposium
Nov. 5-6	M.D. Day West (Hilton Harvest House, Boulder, Colo.)
Nov. 13-14	Dysphagia: Pharyngeal and Uppe Esophageal Causes
(1982)	
Jan. 6-9	Diagnosis and Treatment of Headach (Camelback Inn, Scottsdale, Ariz.)
Feb. 15-17	Second Annual National Conferenc on Continuous Ambulatory Peritonea Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10-11	Fifth Annual Family Practice Updat Session
Mar. 24-25	Third Annual Spring Surgery Updat
Mar. 29-30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	A Working Conference on Authority, Responsibility and Organization
Apr. 22-23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

Mercy-Baptist Eye Foundation
Suite 343, 615 S. New Ballas Rd., St. Louis 63141
Contact: Jack Harstein, M.D. or Richard B. Oglesby

Oct. 11	13th Eye Seminar — Glaucoma

Greater Kansas City Radiological Society

Note: 4:00 PM lectures will be held in the Dept. of Diagnostic Radiology, University of Kansas Medical Center, Kansas City, Kan.
6:30 PM lectures will be held at the Alameda Plaza Hotel, Kansas City

Oct. 14	4:00 PM Percutaneous Transluminal Angioplasty Technical Considerations 6:30 PM Percutaneous Transluminal Angioplasty Clinical Applications and Results
Nov. 13	8:30 PM Malpractice and the Radiologist
1982)	
Jan. 13	4:00 PM CAT Scanning of the Appendicular Skeleton 6:30 PM CAT Scanning of the Spine
Feb. 10	4:00 PM Recent Advances in Diagnostic Ultrasound 6:30 PM Obstetrical Ultrasound: An Update
Mar. 10	4:00 PM Digital Radiography — Equipment and Technical Considerations 6:30 PM Digital Radiography Clinical Applications
Apr. 14	4:00 PM Percutaneous Abscess Drainage 6:30 PM Percutaneous Biopsy Techniques

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Oct. 1-3	50th Anniversary Celebration
Oct. 2	Tenth Annual Wendell G. Scott Lecture

St. Louis University Medical Center
Continuing Education
3544 Caroline St., St. Louis 63101
(314) 664-9800, Ext. 127
***Contact:* John A. Grellner, Director**

ept. 11-12	The Human Life Amendment
Oct. 7	Symposium on Clinical Dermatology

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Sept. 19	Neurovascular and Ligamentous Disorders of the Upper Extremity
Nov. 5-7	Clinical Allergy for the Practicing Physician
Nov. 13-15	Eighth Annual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
Dec. 10-12	Current Concepts in Cancer Therapy — Missouri Chapter, American Cancer Society (Stouffer's Riverfront Towers)
(1982)	
Jan. 17-22	Pediatric Gastrointestinal Disease (Keystone, Colo.)
Jan. 23-30	Obstetrics and Gynecolory (Aboard the M/S Southward)
Apr. 2-5-May 3	Fourth Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Athens, Greece)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

	4:00 PM — Basic Sciences to Surgery Seminar (Monday through Friday)
	3:00 PM — Surgical Rounds (Every Wednesday and Friday)
	4:00 PM — Surgical Techniques Seminar (Every second and fourth Wednesday)
	4:45 PM — Morbidity and Mortality Conference (Every fourth Wednesday)
	8:00 AM — Morbidity and Mortality Conference (Every second Saturday)
	7:00 AM — Surgical Grand Rounds (First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

	9:00 AM — Medicine Staff Conference (First, third and fourth Tuesdays)
Nov. 18-20	Clinical Advances in Pediatrics (The Children's Mercy Hospital)

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

AN INCREMENTAL APPROACH to dues increases was adopted by the AMA House of Delegates. Dues next year will be $285, an increase of $35. The House also accepted the principle of considering raises of $30 in 1983 and $25 in 1984, subject to the wishes of the delegates in 1983 and 1984. The House also set the dues of physicians in their second year of practice at 75% of regular dues, set the dues of physicians in military service at two-thirds of regular dues, and continued the reduced dues rates for residents ($35) and medical students ($15).

NEXT YEAR'S AMA DUES, together with other income, are expected to finance a budget with estimated operating expenses of $68.2 million and to provide $4.7 million for reserves. Organizational changes, following a detailed review of AMA programs, are under way to produce a "leaner but more effective" Association with a primary function of representation in a wide variety of professional and public arenas. Program and staff consolidation, selective programming, and discontinued activities will result in a significant reduction of expenditures.

DRUG ABUSE: *A Guide for the Primary Care Physician* is a new AMA book designed to help physicians treat patients with drug problems. It deals with causes, incidence, diagnosis, treatment, and methods for confronting and counseling drug abusers and their families. Pointers are given on prescribing practices that curb abuse of prescription drugs. The publication contains guides to chemical, proprietary, and popular names of commonly abused drugs, physical signs of acute drug reactions, tests to confirm suspected drug abuse, and state and federal drug abuse agencies. The book was prepared by the AMA Department of Mental Health and consultants. Copies are available from the Order Dept., OP-323, AMA, P.O. Box 821, Monroe, WI 53566. Single copies are $15, plus $2 for handling.

THE AMA URGED CONGRESS to continue adequate funding for the National Library of Medicine. In a letter to the chairman of the Senate Committee on Labor and Human Resources, the AMA said the library is "a unique national institution that has played a particularly prominent role in coordinating and disseminating among medical practitioners the information essential to advancing the art and science of medicine."

"GEARING UP FOR RETIREMENT," a workshop for physicians and their spouses, will be held regionally throughout the country beginning in July and continuing through the fall. Practice closings, evaluation of a practice for sale, financial planning and personal considerations are included in the course. For information, contact the Department of Practice Management, AMA Headquarters.

PHYSICIAN REPRESENTATIVES from more than a dozen national medical specialty societies, attending an AMA-sponsored Cost-Effectiveness Conference, developed preliminary proposals for projects within their specialties. The final form and implementation of the cost-containment projects will be directed by the societies themselves. Participants at the conference were urged to respond creatively to cost-containment pressures, to make sure that health care dollars are wisely spent, and not to allow cost coercion to replace cost effectiveness in delivery of care.

THE NUMBER OF GROUP PRACTICES rose sharply in the 1970s — from 6,371 in 1969 to 10,762 in 1980, an increase of 69% — according to preliminary data compiled by the AMA's Division of Survey and Data Resources. During this same period the number of group physicians in the U.S. increased from 40,093 to 88,290, a rise of 120%. Single specialty groups and physicians practicing in single specialty groups show the greatest rate of growth, increasing from 3,169 groups and 13,053 physicians in 1969 to 6,156 groups and 29,456 physicians in 1980. The number of groups with more than 50% of revenues derived from prepaid contracts with patients grew from 142 in 1975 to 484 in 1980, an increase of 241%. During the five-year period, the number of groups reporting some prepaid activity increased from 662 to 1,884.

110
105
100
95
90
85

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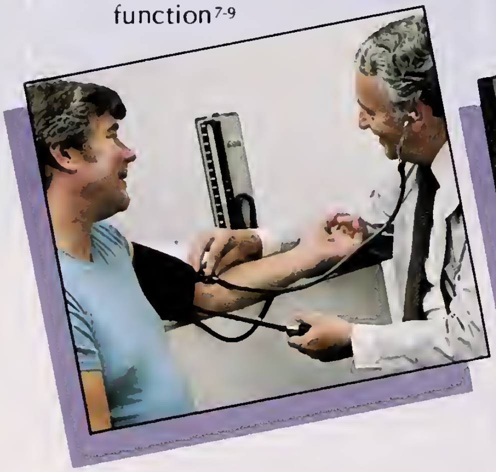

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☐ Long-term economy

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References: 1. Data on file, Medical Department, Pennwalt Pharmaceutical Division. 2. Sambhi MP, Eggena P, Barrett JD, et al: A crossover comparison of the effects of metolazone and hydrochlorothiazide therapy on blood pressure and renin angiotensin system in patients with essential hypertension, in Sambhi MP (ed): *Systemic Effects of Antihypertensive Agents*. New York, Stratton, 1976, pp 221-245. 3. Pilewski RM, Scheib ET, Misage JR, et al: Technique of controlled drug assay in hypertension: V. Comparison of hydrochlorothiazide with a new quinethazone diuretic, metolazone. *Clin Pharmacol Ther* 12:843-848, 1971. 4. Fotiu S, Mroczek WJ, Davidov M, et al: Antihypertensive efficacy of metolazone. *Clin Pharmacol Ther* 16:318-321, 1974. 5. Cangiano JL: Effects of prolonged administration of metolazone in the treatment of essential hypertension. *Current Therapeutic Research* 20:745-750, 1976. 6. Dornfeld L, Kane RE: Metolazone in essential hypertension: The long-term clinical efficacy of a new diuretic. *Current Therapeutic Research* 18:527-533, 1975. 7. Puschett JB: Physiologic basis for the use of new and older diuretics in congestive heart failure. *Cardiovascular Medicine* 2:119-134, 1977. 8. Craswell PW, Ezzat E, Kopstein J, et al: Use of metolazone, a new diuretic, in patients with renal disease. *Nephron* 12:63-73, 1973. 9. Bennett WM, Porter GA: Efficacy and safety of metolazone in renal failure and the nephrotic syndrome. *J Clin Pharmacol* 13:357-364, 1973. 10. *Drug Topics Red Book 1981*, and manufacturers' suggested prices.

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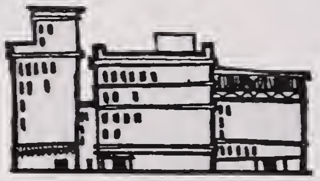

NEWS

From the Medical Schools

UNIVERSITY OF MISSOURI-KANSAS CITY

The School of Medicine has received more than $350,000 from the estate of Elizabeth Nave Flarsheim. The funds from the invested sum will be used to provide scholarships for medical students. Mrs. Flarsheim's husband, Louis Flarsheim, died in 1977. Mrs. Flarsheim left most of her $1.2 million estate to charity. Other major beneficiaries from the estate are the Children's Mercy Hospital and the St. Luke's Hospital Foundation for Medical Education and Research, in Kansas City.

Dr. James J. Mongan, a national leader in health care policy, has been named acting executive director of Truman Medical Center, the primary adult teaching hospital of the School of Medicine. Dr. Mongan replaces *Dr. John Ashley*, who left on July 1 to assume the post of Executive Director of the University of Virginia Hospital in Charlottesville.

Dr. Mongan was associate director for health and human resources on the domestic policy staff of the White House before moving to Kansas City.

Dean Harry S. Jonas recently announced several changes in the Department of Medicine. *Dr. E. Grey Dimond*, special consultant to the chancellor, is interim chairman of the department. New senior docents in the department are *Dr. S. Stephen Hamburger, Daniel Whitman, Thomas Glatter, Jack Mulligan* and *Willie McLemore*.

The American College of Chest Physicians will feature *Dr. Susan Pingleton's* videotape program, "Pulmonary Physiology: Structure and Mechanics," in its multimedia learning center at the annual meeting this year. Dr. Pingleton is a docent and associate professor of medicine. She is the recipient of the Pulmonary Academic Award of the National Institutes of Health, which enabled her to this videotape and successive programs in the series.

Anne Jones, a sixth-year medical student, has received the research award of the St. Louis Friends of the UMKC School of Medicine. *William Boulware*, also a sixth-year student, received the basic science award of the St. Louis Friends. Both awards will be presented next May at the Oath of Physicians ceremony during graduation week.

Pascale Hammond, a third-year student in the School of Medicine, has received the Leland Gier award for the outstanding paper in the biological sciences and a special award from the American Cancer Society for the best paper concerned with cancer. "A Study of Sister Chromatid Exchanges in Human Lymphocytes Exposed to Various Drugs" deals with an assay of cytogenetic damage used as a mutagenicity and carcinogenicity index.

Bernard Lubin, M.D., professor of psychology and medicine, received the 1981 N. T. Veatch Award for distinguished research and creative accomplishments. The award, named for the founder and former managing partner of the Kansas City-based engineering firm of Black and Veatch, was established at the School of Medicine in 1971. Dr. Lubin also has been appointed a member of the Missouri Department of Mental Health Professional Review Committee.

David J. Moffatt, M.D., professor of anatomy, is in Jeddah, Saudi Arabia, where he is serving as an external examiner in anatomy at King Abdulaziz University. Dr. Moffatt served as a delegate to the sixth annual Saudi Medical Meeting last March, when he presented letters of greeting from Gov. Christopher S. Bond, Kansas City Mayor Richard L. Berkley, Chancellor George A. Russell and Dean Harry S. Jonas to the dean of the medical school in Jeddah.

Marjorie Sirridge, M.D., professor of medicine, recently returned from a month in the People's Republic of China. Dr. Sirridge lectured at the Shanghai Second Medical College and saw patients during her stay.

A group of 50 students, staff and faculty from the School of Medicine left on July 31 for a month-long study tour of the People's Republic of China. Scheduled stops include Shanghai, Peking, Harbin, Canton, and Hong Kong. Tour leader is *Edward J. Twin*, M.D., professor of medicine.

WASHINGTON UNIVERSITY

Virginia V. Weldon, M.D., professor of pediatrics, was recently named associate vice-chancellor for medical affairs. Since 1975, Dr.

Veldon has been assistant to the vice-chancellor or medical affairs. She is also vice-president of he Washington University Medical Center, a osition to which she was elected in 1980.

Dr. Weldon earned her M.D. degree at the niversity of Buffalo School of Medicine in 1962 nd was an intern and then assistant resident in ediatrics at The Johns Hopkins Hospital in Balti-nore. After a fellowship and instructorship at ohns Hopkins Medical School, she joined Vashington University School of Medicine in 968. She became assistant professor of pediatrics 1969, associate professor in 1973 and professor 1979. She has served as co-director of the Divi-ion of Pediatric Endocrinology and assistant irector of the Clinical Research Center.

Felton James Earls, M.D., currently assistant rofessor of psychiatry at Harvard Medical chool, has been named director to the School of ledicine Division of Child Psychiatry.

Dr. Earls assumed his new duties at Washing-on University on July 1. He succeeds *E. J. nthony*, M.D., a scholar and researcher of international repute, who is retiring from the direc-orship which he has held for 23 years. Dr. nthony, however, will retain the Blanche F. tleson Professorship in the Division of Child sychiatry.

Dr. Earls received his M.D. degree from How-d University in 1967. From 1967-1969, he was a ellow in Neurophysiology at the University of isconsin in Madison. He then interned in ediatrics at Metropolitan Hospital, New York ledical College, and served his residency in sychiatry at Massachusetts General Hospital in oston.

In addition to his fellowship at the University of isconsin, Dr. Earls was also a Josiah Macy, Jr. aculty Fellow at Harvard and a Medical Foun-tion Fellow at The Children's Hospital Medical enter in Boston.

Frederick D. Peterson, M.D. '57, clinical sociate professor of pediatrics, is the new presi-ent of the Washington University Medical Cen-r Alumni Association.

Other officers are *August W. Geise, Jr.*, M.D. 5, clinical professor of neurosurgery, University Missouri, past-president; *Richard P. Parsons*, .D. '58, clinical assistant professor of urology, ashington University, president-elect; *Charles Norland*, M.D. '59, clinical assistant professor medicine, Washington University, vice-esident; and *John C. Herweg*, M.D. '45, pro-ssor of pediatrics, Washington University, secretary-treasurer.

Dr. Peterson is a councilor for the MSMA Third District.

Richard P. Bunge, M.D. has been appointed to chair the Part I Anatomy Test Committee of the National Board of Medical Examiners and *John D. Halverson*, M.D. has been appointed to the Board's Part II Surgery Test Committee.

Dr. Bunge was graduated from the University of Wisconsin Medical School in Madison in 1960. He then became a postdoctoral fellow of the National Multiple Sclerosis Society under Dr. Margaret-Murray at Columbia University where he was named an assistant professor of anatomy in 1962 and associate professor in 1966. He remained at Columbia University until 1970 when he joined the Washington University School of Medicine where he is now professor of anatomy and neurobiology and Beaumont-May Institute of Neurology Scholar in Anatomy.

A graduate of State University of New York (SUNY) College of Medicine at Syracuse in 1967, Dr. Halverson interned and served his residency in surgery at Barnes Hospital. In 1975, he became assistant professor of surgery at the school of medicine, the position he now maintains. He also is a member of the staffs of Barnes and St. Louis Children's hospitals.

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UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Jim Waterfield of Springfield *(center)* presents the $50,000 grant from the Smith-Glynn-Callaway Medical Foundation of Springfield to Dean Charles Lobeck and UMC Chancellor Barbara Uehling.

The Smith-Glynn-Callaway Medical Foundation of Springfield (Mo.) has made a $50,000 grant to the Health Sciences Library Fund at the University of Missouri-Columbia.

The grant brings the Library Fund to within a few thousand dollars of its $2,025,000 goal from the private sector. The University's 1982-1983 budget request will ask the Missouri Legislature for $6,625,000 to construct a combined Health Sciences Library-library storage facility. The University has already received $60,000 in planning money from the State.

Foundation President *Dr. Daniel L. Yancey* explained that the grant was prompted by services rendered by University graduates to the Smith-Glynn-Callaway Clinic, Inc. in Springfield.

The 52-physician clinic includes 12 Missouri medical alumni: *Drs. Thomas E. Ashley, Francis M. Corry, Stanley P. Hayes, Robert D. Holland, Bruce Pegram, Gerald C. Roesler, William K. Rosen, Paul G. Ruff, R. Wayne Shelton, Kenneth E. Waddell, Jim R. Waterfield* and *Marion L. Wolf.*

Dr. Yancey said he is pleased with the development of the Health Sciences Center at UMC and congratulated the University for continuing to provide the facilities necessary to train health professionals to care for Missourians.

Dr. Waterfield presented the grant to *Dr. Charles Lobeck,* dean of the School of Medicine, and UMC Chancellor *Barbara S. Uehling.*

Some members of the University Health Sciences Center faculty play dual roles — that of professor and editor.

Dr. Charles Mengel, chairman of medicine, is the editor of the *Journal of Laboratory and Clinical Medicine,* official publication of Central Society for Clinical Research. It is a monthly journal distributed internationally. The journal's associate editors include UMC Department of Medicine faculty members: *Dr. Daniel Winship,* associate chairman of medicine; *Dr. Karl Nolph,* director of the Nephrology Division; and *Dr. E. Dale Everett,* director of Infectious Diseases Division.

Dr. Lee Forker, professor of medicine and director of the Division of Gastroenterology and liver diseases, is associate editor of the *American Journal of Physiology,* published monthly by the American Physiological Society and distributed worldwide.

Dr. John Yarbro, professor of hematology and medical oncology, is editor of the national quarterly *Seminars in Oncology.*

Dr. Larry Millikan, associate professor of dermatology, is associate editor of the *International Journal of Dermatology,* distributed ten times a year by the International Society of Tropical Dermatology.

Dr. William C. Allen, chief of orthopedic surgery, is associate editor of *The American Journal of Sports Medicine,* which is published bimonthly by the American Orthopaedic Society for Sports Medicine.

Dr. Allen is also editor of *The Clinical Orthopedics and Related Research,* which is published eight times annually.

Dr. Clark Watts, chief of neurosurgery, is editor of the *Journal of Neurosurgery,* published monthly by the American Association of Neurological Surgeons.

ST. LOUIS UNIVERSITY

Robert E. Burdge, M.D., associate professor of orthopedic surgery, was named professor and chairman of the department, effective July 1.

The appointment was announced by *David P. Challoner,* M.D., dean, School of Medicine. "After a wide national search for a new chairman, we concluded that we had the best possible candidate right here in St. Louis," he said. "The appointment is important in keeping Dr. Burdge and his talents available to the St. Louis medical and patient community."

Dr. Burdge succeeds *D. Elliott O'Reilly,* M.D., who founded the full-time department in 1970. Dr. O'Reilly will continue as an active member of the department.

A native of Boston, Mass., Dr. Burdge reeived his M.D. degree at the School of Medicine n 1966. He joined the faculty at the medical chool in 1972.

Dr. Burdge is widely known for his work on oint replacement and the treatment of athletic njuries. He has produced a movie in conjunction vith Anheuser-Busch, Inc. on the "Prevention of occer Injuries in the Adolescent." In addition, e serves as an orthopedic consultant for the atholic Youth Council (CYC) and works as the hief physician for St. Louis University's athletic epartment. He is currently writing a manual on he treatment of athletic injuries for the Committee on Sports Medicine of the American Academy f Orthopedic Surgery of which he is a member.

George E. Thoma, M.D., vice-president for he Medical Center, has announced the appointent of *A. Stephen Coburn*, M.B.A., M.P.H., as ssociate vice-president for the medical center.

Mr. Coburn will have direct responsibility for ll non-academic affairs of the medical center exept the Hospitals, including fiscal matters, peronnel, physical facilities and general support serices. In addition, he will coordinate these areas ith the Hospitals and with the central adminisation of St. Louis University. Prior to his appointemnt as assistant vice-president in 1976, he was assistant professor of community medicine at the school of medicine.

Susan Marshall, M.D., assistant professor of internal medicine, has been appointed director of the Pulmonary Exercise Testing and Rehabilitation Program at the Medical Center.

The program provides diagnoses and treatment for patients with emphysema, bronchitis, asthma and other disabling lung diseases.

Dr. Marshall received her training in internal medicine and pulmonary disease at the University of Missouri and Vanderbilt University. She is a diplomate of the American Board of Internal Medicine and of the Pulmonary Subspecialty section, a member of the American Thoracic Society and a fellow in the American College of Chest Physicians.

Robert C. Dunn, Jr., M.D., assistant professor of surgery and anatomy, has been awarded a five-year, teacher-investigator development grant by the National Institute of Neurological and Communicative Disorders and Stroke.

Dr. Dunn's research will investigate brain injury responses to determine why the recovery of children with brain injury is usually more rapid and complete than similar injury in adults.

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New Members

Jeanette Easton Akhter, M.D., 2400 Lynnwood Dr., Columbia 65212, has become a member of Boone County Medical Society. Dr. Akhter received her preliminary education at Muhlenberg College and her M.D. degree at Cornell University in 1971. She specializes in obstetrics/gynecology and anesthesiology.

Sue Kathryn Anderson, M.D., 629 W. 70th, Kansas City 64113, has become a member of Jackson County Medical Society. Dr. Anderson is a native of Lawrence, Kan., received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Kansas City in 1977. She specializes in nephrology.

John Fredrick Bluhm III, M.D., 1718 S. Ingram, Sedalia 65301, has become a member of Pettis County Medical Society. Dr. Bluhm is a native of Sedalia, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at St. Louis University in 1976. He specializes in dermatology.

Robert A. Brinkman, M.D., 38 Washington Terr., St. Louis 63112, has become a member of St. Louis Metropolitan Medical Society. Dr. Brinkman is a native of Omaha, Neb., received his preliminary education at Creighton University and his M.D. degree at Washington University in 1976. He specializes in internal medicine and cardiology.

Harry D. Burack, M.D., 5548 Waterman Pl., St. Louis 63112, has become a member of the St. Louis Metropolitan Medical Society. Dr. Burack is a native of Newark, N.J., received his preliminary education at the University of Rochester and his M.D. degree at Albany Medical College in 1978. He specializes in internal medicine.

Carl Edward Bussmann, M.D., 1325 S. Grand Blvd., St. Louis 63104, has become a member of the St. Louis Metropolitan Medical Society. Dr. Bussmann is a native of St. Louis, received his preliminary education at Princeton University and his M.D. degree at St. Louis University in 1976. He specializes in general surgery.

Larry Donald Cordell, M.D., 6400 Prospect, Kansas City 64132, has become a member of the Jackson County Medical Society. Dr. Cordell is a native of Kansas City, received his preliminary education at the University of Kansas and h M.D. degree at the University of Kansas in 196 He specializes in orthopaedics.

James W. DeBoard, M.D., 1000 W. 10th, Ro la 65401, has become a member of Mid-Missou Medical Society. Dr. DeBoard is a native of Ka sas City, received his preliminary education Austin College and his M.D. degree at the Un versity of Missouri-Columbia in 1976. He specia izes in anesthesiology.

Vicente Dy Eng Kiat, M.D., Fulton State Ho pital, Fulton 65251, has become a member Callaway County Medical Society. Dr. Dy En Kiat is a native of Manila, received his prelim nary education at Far Eastern University and hi M.D. degree at Far Eastern University in 197 He specializes in internal medicine.

Jay Alan Fleischman, M.D., 3655 Vista Ave. St. Louis 63110, has become a member of St Louis Metropolitan Medical Society. Dr. Fleisch man is a native of Brooklyn, N.Y., received hi preliminary education at Columbia Universit and his M.D. degree at Columbia University i 1975. He specializes in ophthalmology.

David Washington Glover, M.D., 220 E. Cul ton, Warrensburg 64093, has become a membe of Johnson County Medical Society. Dr. Glover i a native of Joplin, received his preliminary educa tion at the University of Missouri-Kansas City an his M.D. degree at the University of Missouri Kansas City in 1978. He specializes in famil practice.

Stanley Norman Graven, M.D., University o Missouri Health Sciences Center, 807 Stadium, Columbia 65212, has become a member of Boon County Medical Society. Dr. Graven is a native o Greene, Iowa, received his preliminary education at St. Olaf College and Wartburg College and his M.D. degree at the University of Iowa College of Medicine in 1956. He specializes in pediatrics.

Michael Bernard Gutwein, M.D., 3009 N. Ballas Rd., St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Gutwein is a native of McAllen, Tex., received his preliminary education at Harvard Col lege and his M.D. degree at Washington University in 1974. He specializes in internal medicine.

Rodney C. Hartman, M.D., 644 E. 13th,
edalia 65301, has become a member of the Pettis
ounty Medical Society. Dr. Hartman is a native
Lincoln, Neb., received his preliminary educa-
on at Massachusetts Institute of Technology and
s M.D. degree at the University of Nebraska in
)77. He specializes in diagnostic radiology.

Mary Alice Helikson, M.D., University of
issouri Health Sciences Center, Dept. of
irgery, Columbia 65212, has become a member
Boone County Medical Society. Dr. Helikson
a native of Longview, Tex., received her pre-
ninary education at the University of Oregon
onors College and her M.D. degree at Stanford
iiversity in 1972. She specializes in pediatric
rgery.

Michael Francis Hynes, M.D., 1010 Caron-
let Dr., Kansas City 64114, has become a mem-
r of Jackson County Medical Society. Dr.
ynes is a native of Springfield, Ohio, received
preliminary education at the University of
yton and his M.D. degree at St. Louis Uni-
rsity in 1972. He specializes in plastic surgery.

Udayshanker Kasinadhuni, M.D., 1465 S.
and, St. Louis 63104, has become a member of
Louis Metropolitan Medical Society. Dr.
sinadhuni is a native of India, received his
eliminary education at Dhempe College and
M.D. degree at Poona University in 1971. He
ecializes in anesthesiology.

Douglas Ross Kenney, M.D., Medical Bldg.,
spital Drive, Clinton 64735, has become a
mber of Henry County Medical Society. Dr.
nney is a native of Harrisonville, received his
eliminary education at Central Missouri State
iversity and his M.D. degree at the University
Missouri-Columbia in 1978. He specializes in
ily practice.

an L. Kramer, M.D., 7748 Attingham La.,
Louis 63119, has become a member of St.
uis Metropolitan Medical Society. Dr. Kramer
a native of Takoma Park, Md., received his
liminary education at the University of Mary-
d and his M.D. degree at Johns Hopkins Uni-
sity in 1978.

ames Walter Kriegshauser, M.D., 3915 Wat-
Rd., St. Louis 63109, has become a member
St. Louis Metropolitan Medical Society. Dr.
egshauser is a native of St. Louis, received his
liminary education at the University of Mis-
ri-Columbia and his M.D. degree at the Uni-

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versity of Missouri-Columbia in 1978. He speci izes in internal medicine.

Sheri Marie Luebrecht, M.D., University Missouri-Columbia 65201, has become a memb of the Boone County Medical Society. Dr. Lue recht is a native of St. Louis, received her pr liminary education at the University of Missou Columbia and her M.D. degree at University Missouri-Columbia in 1980. She specializes anesthesiology.

Thomas Orvan Lyles, M.D., 1031 Bellevie Ave., Suite 210, St. Louis 63117, has become member of St. Louis Metropolitan Medical Soci ty. Dr. Lyles is a native of Carrier Mills, Il received his preliminary education at Southe Illinois University and his M.D. degree Washington University in 1975. He specializes urology.

Robert H. Marcus, M.D., Barnes Hospit St. Louis 63110, has become a member of S Louis Metropolitan Medical Society. Dr. Marc is a native of Chicago, Ill., received his prelim nary education at Menlo College and the U versity of California and his M.D. degree at C cago Medical School in 1974. He specializes emergency medicine.

Robert Charles Meyer, M.D., 5869 Walsh, S Louis 63109, has become a member of the S Louis Metropolitan Medical Society. Dr. Mey is a native of St. Louis, received his prelimina education at the University of Missouri-Rolla a Washington University and his M.D. degree St. Louis University in 1976. He specializes general surgery.

Keith L. Mullenger, M.D., 510 S. Kingshig way, St. Louis 63110, has become a member St. Louis Metropolitan Medical Society. D Mullenger is a native of New Rochelle, N.Y received his preliminary education at Iowa Sta University and his M.D. degree at Washingt University in 1978. He specializes in diagnost radiology.

James A. Nepute, M.D., St. Louis Universit Dept. of Radiology, 1325 S. Grand, St. Lo 63104, has become a member of St. Louis Metr politan Medical Society. Dr. Nepute is a native St. Louis, received his preliminary education Washington University and his M.D. degree Baylor College of Medicine in 1977. He speci izes in radiology.

Enrique Pedro Perinetti, M.D., 12255 De- ul Dr., Bridgeton 63044, has become a mem- r of the St. Louis Metropolitan Medical Socie- . Dr. Perinetti is a native of Menoota, Argenti- , received his preliminary education at Colegio acional A. Alvadez-Mendoza and his M.D. de- ee at University of Cuyo in 1969. He specializes urology.

Ronald Leland Phillips, M.D., 600 S. Balti- ore, Kirksville 63501, has become a member of e North Central Counties Medical Society. Dr. illips is a native of Trenton, received his pre- inary education at the University of Missouri- lumbia and his M.D. degree at the University Missouri-Columbia in 1978. He specializes in nily practice.

George Prica, Jr., M.D., 1502 E. Broadway, lumbia 65201, has become a member of Boone unty Medical Society. Dr. Prica is a native of Louis, received his preliminary education at Louis University and the University of Mis- uri-Rolla and his M.D. degree at the University Missouri-Columbia in 1976. He specializes in nily practice.

Vira Santibhavank, M.D., 621 S. New Ballas l., St. Louis 63141, has become a member of e St. Louis Metropolitan Medical Society. Dr. ntibhavank is a native of Thailand, received his eliminary education at Mahidol University and M.D. degree at Mahidol University in 1972. e specializes in anesthesiology.

Stephen Simons, M.D., 601 East 63rd St., nsas City 64110, has become a member of Jack- n County Medical Society. Dr. Simons is a tive of Omaha, Neb., received his preliminary ucation at the University of Nebraska and his D. degree at the University of Nebraska in 76. He specializes in pediatrics.

Craig William Spenner, M.D., 77 West Port za, St. Louis 63141, has become a member of Louis Metropolitan Medical Society. Dr. enner is a native of St. Louis, received his eliminary education at St. Louis University and M.D. degree at St. Louis University in 1977. specializes in dermatology.

Louis K. Stiaszny, M.D., 9150 E. 41st Terr., nsas City 64133, has become a member of Jack- County Medical Society. Dr. Stiaszny is a ive of Hungary, received his preliminary ication at Budapest, Hungary and his M.D. gree at Medical University, Hungary in 1965. specializes in pediatrics.

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Nora C. Umali-Sessoms, M.D., 12303 DePaul Dr., Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Umali-Sessoms is a native of the Philippines, received her preliminary education at the University of Santo Tomas and her M.D. degree at the University of Santo Tomas in 1967. She specializes in anesthesiology.

Steven D. Waldman, M.D., Mayo Clinic, Rochester, Minn. 55901, has become a member of Jackson County Medical Society. Dr. Waldman is a native of Kansas City, received his prelim nary education at the University of Missou Kansas City and his M.D. degree at the Univers ty of Missouri-Kansas City in 1977. He speciali in anesthesiology.

C. Bill Wallace, Jr., M.D., 2910 St. Mary Ave., Hannibal 63401, has become a member Missouri State Medical Society. Dr. Wallace is native of Sherman, Tex., received his prelimina education at Southern Methodist University an his M.D. degree at Washington University i 1964. He specializes in general and vascul surgery.

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Thomas F. Gambon

University of Missouri-Kansas City

John J. Byrnes
Pascale Hammond
Martha A. Papay
Mary Ann Schroer

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In Memoriam

Donald William Cowherd, M.D., 1325 Grand
ve., St. Louis 63104; graduate of University of
olorado, 1960; member of St. Louis Metropoli-
n Medical Society; aged 48; died June 6, 1981.

Charles F. Callihan, M.D., P.O. Box 930,
est Plains 65775; graduate of Washington Uni-
rsity, 1936; member of South Central Counties
edical Society; aged 69; died June 8, 1981.

David D. Rendleman, M.D., 35 N. Central,
layton 63105; graduate of McGill University,
64; member of St. Louis Metropolitan Medical
ciety; aged 47; died June 9, 1981.

Carl H. Schutz, M.D., Aldersgate Village, #4
xbridge, Topeka, Kan., 66614; graduate of Uni-
rsity of Pennsylvania, 1924; member of Jackson
ounty Medical Society; aged 82; died June 9,
81.

Jack M. Estes, M.D., 493 Rue St. Francois, Suite #4, Florissant 63031; graduate of University of Illinois, 1953; member of St. Louis Metropolitan Medical Society; aged 57; died June 18, 1981.

Andrew B. Jones, M.D., Rt. #1, Soddy, Tenn. 37379; graduate of Vanderbilt University, 1916; member of St. Louis Metropolitan Medical Society; aged 91; died June 19, 1981.

Leo H. Pollock, M.D., 6601 Wenonga Terr., Shawnee Mission, Kan. 66208, graduate of University of Kansas, 1931; member of Jackson County Medical Society; aged 73; died July 2, 1981.

Ezra L. Petry, M.D., 13740 W. 90th Pl., Apt. 1, Lenexa, Kan. 66215; graduate of Northwestern University, 1922; member of Jackson County Medical Society; aged 84; died July 3, 1981.

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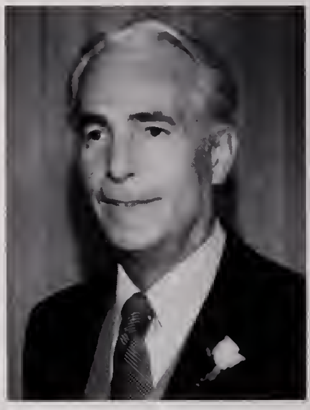
Missouri Medicine in Review

LEO H. POLLOCK, M.D.

February 3, 1908 July 2, 1981

A Tribute to Dr. Pollock



Dr. Pollock

Dr. Leo H. Pollock, contributing editor for MISSOURI MEDICINE and well known Kansas City surgeon, died on July 2, 1981 after a career spanning 50 years in his chosen profession.

Dr. Pollock served this Journal for 27 years as contributing editor and author of the column, "Missouri Medicine in Review." He was invited to write the column by Dr. Vincent T. Williams, editor at the time. He has contributed the column, "Medicine in the Bible," for the *Greater Kansas City Medical Bulletin*, which also has published his column, "Forty Years Ago."

In the August, 1981 issue of the *Greater Kansas City Medical Bulletin*, Dr. Arthur Adelman pays tribute to Dr. Pollock as "a precise and studious surgeon, known for his meticulous surgical technique and personal devotion to his patients. . . . He was known as a quiet man, articulate in his speech and courteous in manner, well liked and respected by his peers. . . . A man of science and religion, of character and culture, he was a tribute to the medical profession in Kansas City."

We believe our readers will agree that Dr. Pollock applied each of these same qualities in his devoted and faithful efforts every month to provide carefully selected, interesting and friendly items about the past activities and accomplishments of the MSMA, our component societies and members. In our recollection, he never missed a deadline . . . after extensive research that required considerable personal time.

Born in New York City, he lived in Kansas City since early childhood. He received his M.D. degree at the University of Kansas in 1931. He was elected to Phi Beta Kappa and Alpha Omega Alpha, the first student at Kansas University to receive both of these awards.

Dr. Pollock was certified by the American Board of Surgery in 1942 and received the Fellowship in the American College of Surgeons and the International College of Surgeons in 1946 and 1948, respectively. He was discharged from service in the U. S. Medical Corps in World War II in 1946 with the rank of Major.

He was devoted to his family. He and his gracious wife, Adele, are the parents of four daughters.

Thank you, Dr. Pollock, for your outstanding contribution to MISSOURI MEDICINE and the Missouri State Medical Association.

UPJOHN
MOTRIN

For the pain of osteoarthritis the proven power of

Motrin®
ibuprofen, Upjohn
600 mg Tablets
One tablet t.i.d.

Please see the following page for a brief summary of prescribing information.

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Motrin® Tablets (ibuprofen, Upjohn)

Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other non-steroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: Blurred and/or diminished vision, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels. *Coumarin:* bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

Incidence Less Than 1%—Probable Causal Relationship**

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

Incidence Less Than 1%—Causal Relationship Unknown**

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schönlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

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July 1981

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Missouri
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The **ALPHABETICAL ROSTER** on **PAG 460** includes each member's component socie name and code number. A list of component so ety code numbers appears on page 449.

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MSMA AUXILIARY

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For other departments, please refer to t table of contents above.

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or Component Medical Societies

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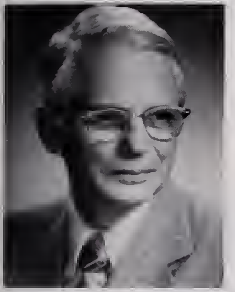
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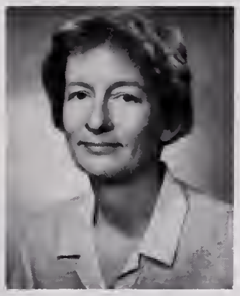
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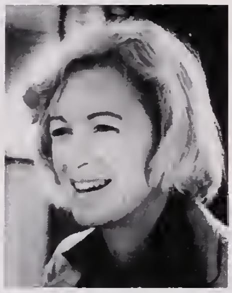
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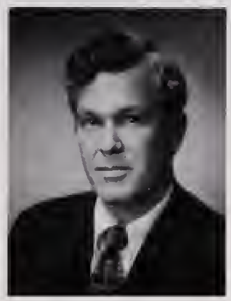
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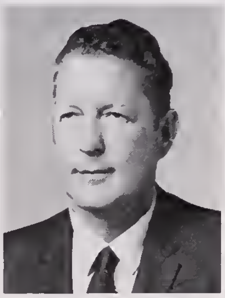
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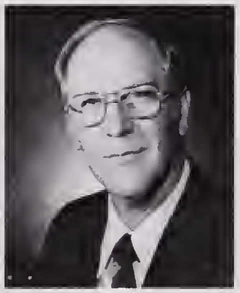
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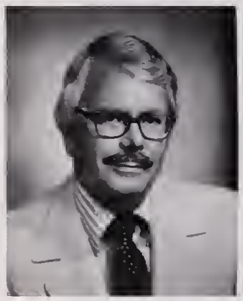
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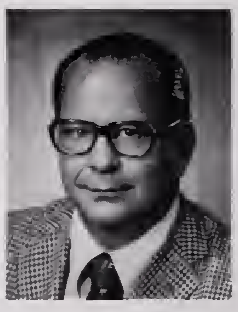
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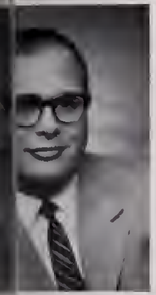

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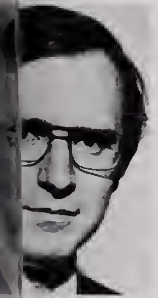

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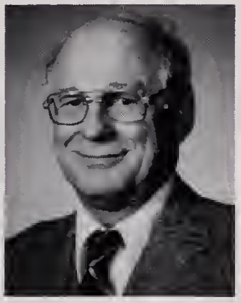

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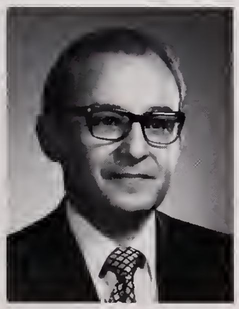

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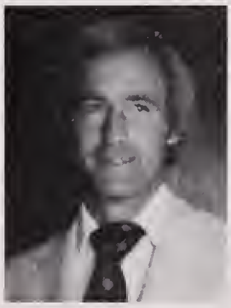

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Interspecialty Medicine—*Missouri Society of Anesthesiologists* — Donald E. McIntosh, Kansas City, *Chairman; Missouri State Allergy Association* — Phillip E. Korenblat, St. Louis; *Missouri Dermatological Society* — Larry E. Millikan, Columbia; *Missouri Chapter, American College of Emergency Physicians* — R. R. Hannas, Kansas City; *Missouri Ear, Nose & Throat Association* — Kenneth A. Buchwach, Kansas City; *Missouri Academy of Family Physicians* — Thomas J. Hopkins, Sedalia; *Federation of Missouri Urologists* — James S. White, Kansas City; *Missouri Society of Internal Medicine* — R. William Burmeister, St. Louis; *Missouri State Neurological Society* — Harry Cole, St. Louis; *Missouri OB-GYN Society* — Gerald L. Miller, Jr., Kansas City; *Missouri Ophthalmological Society, Inc.* — Nicholas J. Colosi, Chesterfield; *Missouri State Orthopaedic Association* — Leonard L. Davis, Mexico; *Missouri Society of Pathologists* — William R. McPhee, Kansas City; *Missouri Chapter, American Academy of Pediatrics* — Donald L. Thurston, St. Louis; *Physical Medicine & Rehabilitation* — Otakar Machek, St. Louis; *Missouri Psychiatric Association* — Thomas Mangelsdorf, St. Louis; *Missouri Radiological Society* — Anthony A. Berni, St. Louis; *Missouri Chapter, American College of Surgeons* — Charles B. Anderson, Clayton; *Missouri State Surgical Society* — Cyril Costello, St. Louis; *Missouri Thoracic Society* — James R. Wiant, St. Louis (1982).

Medical Economics, Third Party Medicine & Governmental Relations—Fred W. Hahn, Kansas City, *Chairman* (1983); Philip A. Sherman, Lebano (1982); James L. Carpenter, St. Charles (1982); Max A. Heeb, Sikeston (1982 Mary K. McCaffree, Jefferson City (1982); Gerard M. Callaghan, St. Loui (1982); Robert J. Stanley, St. Louis (1983); Arturo C. Montes, Florissan (1983); Frederick L. Thompson, Nevada (1983); Charles H. Cozean, Cap Girardeau (1983); Edward J. Twin, Kansas City (1984); Nicholas J. Colosi, St Louis (1984); Thomas H. Hendren, Liberty (1984); Howard H. Roberts, Joplı (1984); Stanley S. Peterson, Springfield (1984).

Medical-Legal Affairs—Garth S. Russell, Columbia, *Chairman* (1983). Gil Manalo, Carthage (1982); Bernard Draper, Rolla (1982); Jay Meyer, St Louis (1982); David W. Hall, Rogersville (1982); William J. Medlicott, Kansas City (1982); Vicente D. Deles, Crystal City (1983); Charles B. Wheeler, Kansas City (1983); Richard Bower, St. Louis (1983); Robert H. Lund, St. Louis (1983); Fred H. Thornton, Sikeston (1984); Raymond Hartwig, Kansas City (1984); George L. Hawkins, Jr., St. Louis (1984); Edward F. Bare, Tarkio (1984); John J. Krautmann, Jefferson City (1984).

Public Affairs—Jean A. Chapman, Cape Girardeau, *Chairman* (1984); Ver non H. Balster, St. Louis (1982); Lawrence W. O'Neal, St. Louis (1982 George Bohigian, St. Louis (1982); Byron E. Watts, Jefferson City (1982). Ber A. Moranville, Columbia (1982); Edward J. Miller, St. Louis (1983); Leslie F Bond, St. Louis (1983); Marvin R. Barbour, Poplar Bluff (1983); Elias M Throne, Kansas City (1983); Charles L. Jobe, Springfield (1983); A. J. Campbell, Sedalia (1984); Chris K. Fotopoulos, Osage Beach (1984); Robert F Tobin, St. Joseph (1984).

Component Societies in Affiliation With the Missouri State Medical Association

ounty	District	President	Address	Secretary	Address
ndrew	1	J. L. Villahermosa	Savannah	Warren C. Baker	Savannah
udrain	5	Ben N. Jolly	Mexico	Mary Ellen Mullen	Mexico
irton	8	Alvin R. Cain	Lamar	Enrique Piedra	Lamar
oone	5	J. C. Denninghoff	Columbia	Gilbert Ross	Columbia
chanan	1	Gary A. Dyer	St. Joseph	York Silliman	St. Joseph
itler-Wayne-Ripley-Carter	10	John L. Hunt	Poplar Bluff	Ricardo Ramirez	Poplar Bluff
llaway	5	Dilip Parulekar	Fulton	Dean Breashers	Fulton
ipe Girardeau County Area Medical Society, Inc.	10	J. Marshall Jung	Cape Girardeau	H. Clay Cundiff	Cape Girardeau
ariton-Macon-Monroe-Randolph	2	Gary LaMonda	Harrisburg	Bruce Bade	Moberly
ay	1	Fred A. Thomas	Kansas City	Gary D. Cooper	Liberty
inton	1	J. H. Sweiger	Plattsburg	L. A. Ozenberger	Plattsburg
le	5	John J. Krautmann	Jefferson City	Charles J. Landsbaum	Jefferson City
oper	5			E. T. Humphreys	Boonville
llas-Hickory-Polk-Dade	8	Bill M. Carnell	Buffalo	Ruth S. Rios	Bolivar
nklin	10	Surat Sinasa	Kennett	Quinton Tarver	Kennett
anklin-Gasconade-Warren	4	Erik C. Houttuin	Eureka	Emiliano Umali	Washington
and River Medical Society (Caldwell-Carroll-Livingston-Grundy-Daviess-Harrison-Linn-Mercer-DeKalb)	1	Albert Cross	Trenton	John R. Dixon	Brookfield
eene	8	Charles J. Ash	Springfield	Keith LaFerriere	Springfield
nry	6	Richard King	Clinton	Kenneth F. Scott	Clinton
ward	5	Maurice P. Leech	Fayette	Roger Hofmeister	Fayette
kson	7	Robert C. Fairchild	Kansas City	George E. Volk	Kansas City
per	8	Frank I. Clark	Joplin	Adolph Mueller	Joplin
ferson	10	Duk J. Park	Festus	Benjamin I. Albano	Crystal City
nson	6	Keith D. Jones	Warrensburg	Robert L. Cooper	Warrensburg
clede	9	Phillip Sherman	Lebanon	Gary Courter	Lebanon
fayette-Ray	6	Joe W. Ward	Lexington	Catherine Boydston	Odessa
ke of the Ozarks Medical Society (Camden-Miller-Morgan)	5	Bob Hall	Versailles	Melvin R. Hayden	Camdenton
wis-Clark-Scotland	2			L. Y. Davis	Canton
rion-Ralls-Shelby	2	Francis Burns	Hannibal	J. Russell Comer	New London
d-Missouri County Medical Society Phelps-Crawford-Dent-Pulaski-Maries)	9	Hugh C. Bartlett	Rolla	Neal Grannemann	Rolla
neral Area Medical Society St. Francois-Iron-Madison-Washington-Reynolds-Bollinger)	10	Charles Chastain	Flat River	Thomas G. Hartmann	Farmington
niteau	5	Kenyon S. Latham	California	L. M. Gallagher	California
ntgomery	5			Samuel J. Byland	Wellsville
rth Central Counties Medical Society (Adair-Schuyler-Knox-Sullivan-Putnam)	2	Francis Tarvydas	Edina	Milton T. English	Kirksville
rthwest Missouri Medical Society Nodaway-Holt-Atchison-Gentry-Worth)	1	John M. Wanamaker	Rock Port	Walter E. Dean	Maryville
rks Medical Society (Barry-Lawrence-Christian-Newton-McDonald)	8	Andres G. Apostol	Monett	Larry Halverson	Aurora
niscot	10	Andrew E. Painter	Portageville	James G. Hazel	Hayti
ry-Ste. Genevieve	10	Cresencano Medrano	Perryville	Lina E. Medrano	Perryville
tis	6	Donald Eldenburg	Sedalia	Won Sull	Sedalia
e	2			Phil Pitney	Louisiana
tte	1			S. Lloyd Allen	Kansas City
Charles-Lincoln	4	Michael J. Curry	St. Charles	William Sill	St. Charles
Louis Metropolitan Medical Society	3	Robert MacDonald, Jr.	St. Louis	Kenneth R. Smith	St. Louis
ne	6	Richard C. Raynor	Marshall	Lee McCorkle	Marshall
MO County Medical Society Stoddard-New Madrid-Mississippi-cott)	10	Aziz Mahboubi	Sikeston	Michael E. Critchlow	Sikeston
th Central (Howell-Oregon-Texas-Wright-Douglas-Ozark)	9	L. C. Mayuga	Cabool	Jack N. Wiles	West Plains
Lakes Medical ociety (Stone-Taney)	8	Roy Gillispie	Branson	Thomas Huffman	Branson
bster	8	T. M. MacDonnell	Marshfield	R. J. Bareis	Marshfield
st Central Missouri Medical ociety (Bates-Cass-Cedar-t. Clair-Vernon)	6	R. J. Torontow	Nevada	Frederick Thompson	Nevada

Guide to Component Medical Societies

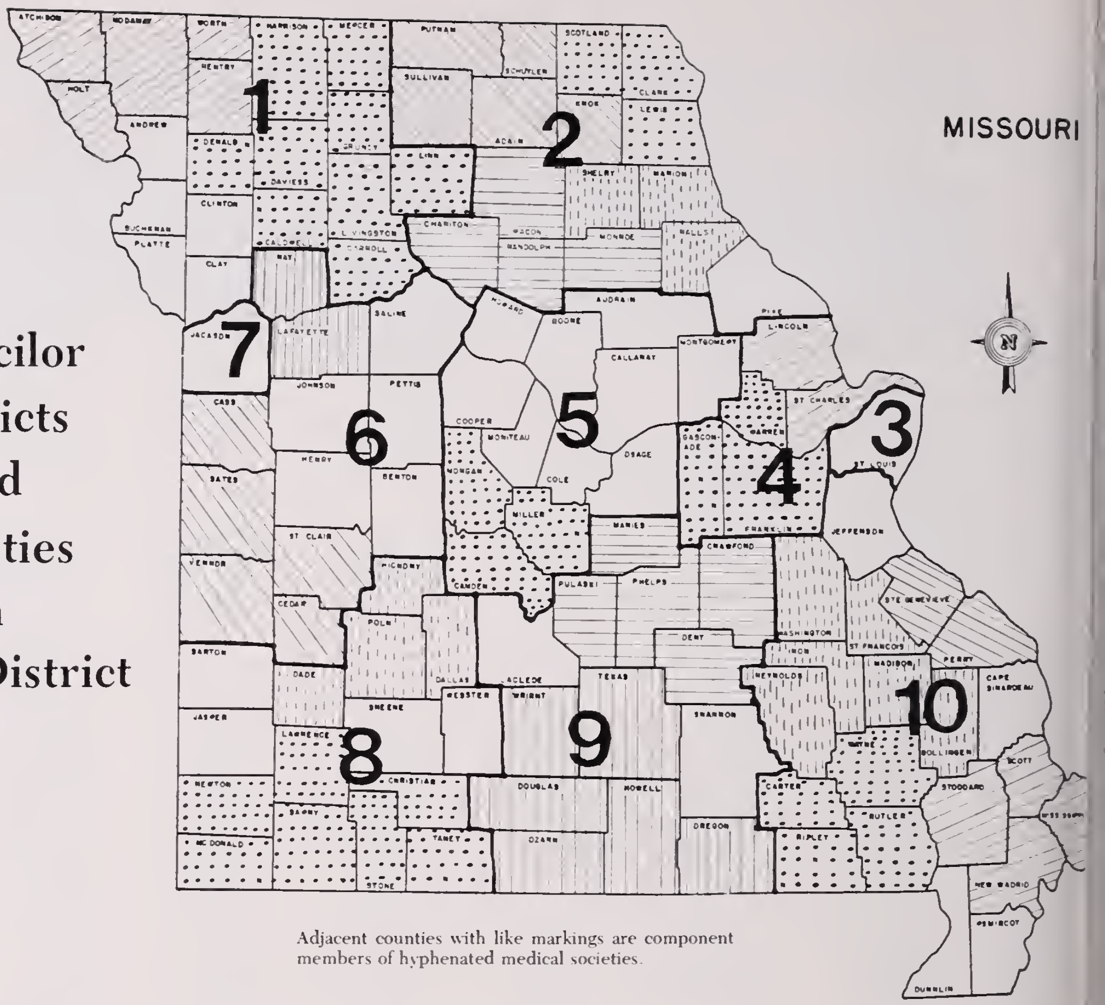
Following is a list of Missouri communities in which MSMA member-physicians are in active practice or reside. Name of the community is followed by the county in which it is located and the medical society to which physicians of that community normally would belong.

Town	*County*	*Medical Society*
A		
Advance	Stoddard	SEMO
Affton	St. Louis	St. Lous Metropolitan
Albany	Gentry	Northwest Missouri
Altenburg	Perry	Perry-Ste. Genevieve
Appleton City	St. Clair	West Central
Arnold	Jefferson	Jefferson
Ashland	Boone	Boone
Aurora	Lawrence	Ozarks
Ava	Douglas	South Central
B		
Ballwin	St. Louis	St. Louis Metropolitan
Belton	Cass	West Central
Berkeley	St. Louis	St. Louis Metropolitan
Bethany	Harrison	Grand River
Bloomfield	Stoddard	SEMO
Blue Springs	Jackson	Jackson
Bolivar	Polk	Dallas-Hickory-Polk-Dade
Bonne Terre	St. Francois	Mineral Area
Boonville	Cooper	Cooper
Bourbon	Crawford	Mid-Missouri
Bowling Green	Pike	Pike
Branson	Taney	Ozarks
Braymer	Caldwell	Grand River
Brentwood	St. Louis	St. Louis Metropolitan
Bridgeton	St. Louis	St. Louis Metropolitan
Brookfield	Linn	Grand River
Browning	Linn	Grand River
Brunswick	Chariton	Chariton-Macon-Monroe-Randolph
Buckner	Jackson	Jackson
Buffalo	Dallas	Dallas-Hickory-Polk-Dade
Butler	Bates	West Central
C		
Cabool	Texas	South Central
Cainesville	Harrison	Grand River
California	Moniteau	Moniteau
Camdenton	Camden	Lake of the Ozarks
Cameron	Clinton	Clinton
Cape Girardeau	Cape Girardeau	Cape Girardeau
Cardwell	Dunklin	Dunklin
Carrollton	Carroll	Grand River
Carthage	Jasper	Jasper
Caruthersville	Pemiscot	Pemiscot
Cassville	Barry	Ozarks
Centralia	Boone	Boone
Charleston	Mississippi	SEMO
Chesterfield	St. Louis	St. Louis Metropolitan
Chillicothe	Livingston	Grand River
Clarksville	Pike	Pike
Clayton	St. Louis	St. Louis Metropolitan
Clinton	Henry	Henry
Columbia	Boone	Boone
Concordia	Lafayette	Lafayette-Ray
Crane	Stone	Ozarks
Creve Coeur	St. Louis	St. Louis Metropolitan
Crystal City	Jefferson	Jefferson
Cuba	Crawford	Mid-Missouri
D		
Desloge	St. Francois	Mineral Area
DeSoto	Jefferson	Jefferson
Dexter	Stoddard	SEMO
Doniphan	Ripley	Butler-Wayne-Ripley-Carter
E		
East Prairie	Mississippi	SEMO
Edina	Knox	North Central
Eldon	Miller	Lake of the Ozarks
El Dorado Springs	Cedar	West Central
Elsberry	Lincoln	St. Charles-Lincoln
Everton	Jackson	Jackson
Excelsior Springs	Clay	Clay
F		
Farmington	St. Francois	Mineral Area
Fayette	Howard	Howard
Fenton	St. Louis	St. Louis Metropolitan
Ferguson	St. Louis	St. Louis Metropolitan
Festus	Jefferson	Jefferson
Flat River	St. Francois	Mineral Area
Florissant	St. Louis	St. Louis Metropolitan
Forsyth	Taney	Ozarks
Fort Leonard Wood	Pulaski	Mid-Missouri
Fredericktown	Madison	Mineral Area
Frontenac	St. Louis	St. Louis Metropolitan
Fulton	Callaway	Callaway
G		
Gallatin	Daviess	Grand River
Gashland	Clay	Clay
Gerald	Franklin	Franklin-Gasconade-Warren
Gideon	New Madrid	SEMO
Gladden	St. Louis	St. Louis Metropolitan
Glasgow	Howard	Howard
Glendale	St. Louis	St. Louis Metropolitan
Grandview	Jackson	Jackson
Grant City	Worth	Northwest Missouri
Gravois Mills	Morgan	Lake of the Ozarks
Greenfield	Dade	Dallas-Hickory-Polk-Dade
H		
Hamilton	Caldwell	Grand River
Hannibal	Marion	Marrion-Ralls-Shelby
Harrison	Cass	West Central
Hayti	Pemiscot	Pemiscot
Herculaneum	Jefferson	Jefferson
Hermann	Gasconade	Franklin-Gasconade-Warren
Hickman Mills	Jackson	Jackson
Higginsville	Lafayette	Lafayette-Ray
Hillsboro	Jefferson	Jefferson
Hornersville	Dunklin	Dunklin
Houston	Texas	South Central
Humansville	Polk	Dallas-Hickory-Polk-Dade
Huntsville	Randolph	Chariton-Macon-Monroe-Randolph
I		
Illmo	Cape Girardeau	Cape Girardeau
Independence	Jackson	Jackson
Ironton	Iron	Mineral Area
J		
Jackson	Cape Girardeau	Cape Girardeau
Jefferson Barracks	St. Louis	St. Louis Metropolitan
Jefferson City	Cole	Cole
Jennings	St. Louis	St. Louis Metropolitan
Joplin	Jasper	Jasper
K		
Kahoka	Clark	Lewis-Clark-Scotland
Kansas City	Jackson	Jackson

own	County	Medical Society
ennett	Dunklin	Dunklin
ing City	Gentry	Northwest Missouri
irksville	Adair	North Central
irkwood	St. Louis	St. Louis Metropolitan
nob Noster	Johnson	Johnson
nox City	Knox	North Central
ch	St. Louis	St. Louis Metropolitan
	L	
idue	St. Louis	St. Louis Metropolitan
mar	Barton	Barton
wson	Ray	Lafayette-Ray
awood (Kan.)		Jackson
adwood	St. Francois	Mineral Area
banon	Laclede	Laclede
e's Summit	Jackson	Jackson
may	St. Louis	St. Louis Metropolitan
xington	Lafayette	Lafayette-Ray
berty	Clay	Clay
nn	Osage	Cole
ckwood	Dade	Dallas-Hickory-Polk-Dade
uisiana	Pike	Pike
	M	
icon	Macon	Chariton-Macon-Monroe-Randolph
ilden	Dunklin	Dunklin
iplewood	St. Louis	St. Louis Metropolitan
irceline	Linn	Grand River
irshall	Saline	Saline
irshfield	Webster	Webster
irtin City	Jackson	Jackson
iryville	Nodaway	Northwest Missouri
mphis	Scotland	Lewis-Clark-Scotland
xico	Audrain	Audrain
lan	Sullivan	North Central
berly	Randolph	Chariton-Macon-Monroe-Randolph
nett	Barry	Ozarks
ntgomery City	Montgomery	Montgomery
rehouse	New Madrid	SEMO
und City	Holt	Northwest Missouri
untain Grove	Wright	South Central
untain View	Howell	South Central
unt Vernon	Lawrence	Ozarks
	N	
osho	Newton	Ozarks
vada	Vernon	West Central
w Florence	Montgomery	Montgomery
w Haven	Franklin	Franklin-Gasconade-Warren
w London	Ralls	Marion-Ralls-Shelby
w Madrid	New Madrid	SEMO
mandy	St. Louis	St. Louis Metropolitan
th Kansas City	Clay	Clay
	O	
Grove	Jackson	Jackson
sa	Lafayette	Lafayette-Ray
allon	St. Charles	St. Charles-Lincoln
vette	St. Louis	St. Louis Metropolitan
eola	St. Clair	West Central
rland	St. Louis	St. Louis Metropolitan
ensville	Gasconade	Franklin-Gasconade-Warren
rk	Christian	Ozarks
	P	
ific	Franklin	Franklin-Gasconade-Warren
nyra	Marion	Marion-Ralls-Shelby
s	Monroe	Chariton-Macon-Monroe-Randolph
ville	Platte	Platte
na	New Madrid	SEMO
onsburg	Daviess	Grand River
onville	St. Louis	St. Louis Metropolitan
yville	Perry	Perry-Ste. Genevieve
lmont	Wayne	Butler-Wayne-Ripley-Carter
t Knob	Iron	Mineral Area
Lawn	St. Louis	St. Louis Metropolitan
e City	Platte	Platte
sburg	Clinton	Clinton
sant Hill	Cass	West Central
ar Bluff	Butler	Butler-Wayne-Ripley-Carter

Town	County	Medical Society
Portageville	New Madrid	SEMO
Potosi	Washington	Mineral Area
Prairie Village (Kan.)		Jackson
Princeton	Mercer	Grand River
	R	
Raytown	Jackson	Jackson
Reeds Spring	Stone	Ozarks
Republic	Greened	Greene
Rich Hill	Bates	West Central
Richmond	Ray	Lafayette-Ray
Richmond Heights	St. Louis	St. Louis Metropolitan
Rivermines	St. Francois	Mineral Area
Robertson	St. Louis	St. Louis Metropolitan
Rock Hill	St. Louis	St. Louis Metropolitan
Rockport	Atchison	Northwest Missouri
Rogersville	Webster	Webster
Rolla	Phelps	Mid-Missouri
	S	
St. Ann	St. Louis	St. Louis Metropolitan
St. Charles	St. Charles	St. Charles-Lincoln
St. Clair	Franklin	Franklin-Gasconade-Warren
Ste. Genevieve	Ste. Genevieve	Perry-Ste. Genevieve
St. James	Phelps	Mid-Missouri
St. Joseph	Buchanan	Buchanan
St. Louis	St. Louis	St. Louis Metropolitan
Salem	Dent	Mid-Missouri
Salisbury	Chariton	Chariton-Marion-Monroe-Randolph
Sappington	St. Louis	St. Louis Metropolitan
Sarcoxie	Jasper	Jasper
Savannah	Andrew	Andrew
Sedalia	Pettis	Pettis
Shawnee Mission (Kan.)		Jackson
Shelbina	Shelby	Marion-Ralls-Shelby
Shelbyville	Shelby	Marion-Ralls-Shelby
Shrewbury	St. Louis	St. Louis Metropolitan
Sikeston	Scott	SEMO
Slater	Saline	Saline
Smithton	Pettis	Pettis
Smithville	Clay	Clay
Springfield	Greene	Greene
Stanberry	Gentry	Northwest Missouri
Steele	Pemiscot	Pemiscot
Steelville	Crawford	Mid-Missouri
Stockton	Cedar	West Central
Stafford	Greene	Greene
Sullivan	Franklin	Franklin-Gasconade-Warren
Sweet Springs	Saline	Saline
	T	
Tarkio	Atchison	Northwest Missouri
Thayer	Oregon	South Central
Trenton	Grundy	Grand River
Troy	Lincoln	St. Charles-Lincoln
	U	
Union	Franklin	Franklin-Gasconade-Warren
University City	St. Louis	St. Louis Metropolitan
	V	
Valley Park	St. Louis	St. Louis Metropolitan
Vandalia	Audrain	Audrain
Versailles	Morgan	Lake of the Ozarks
Vienna	Maries	Cole
	W	
Warrensburg	Johnson	Johnson
Warrenton	Warren	Franklin-Gasconade-Warren
Washington	Franklin	Franklin-Gasconade-Warren
Waverly	Lafayette	Lafayette-Ray
Waynesville	Pulaski	Mid-Missouri
Webb City	Jasper	Jasper
Webster Groves	St. Louis	St. Louis Metropolitan
Wellsville	Montgomery	Montgomery
Wentzville	St. Charles	St. Charles-Lincoln
West Plains	Howell	South Central
Willard	Greene	Greene
Willow Springs	Howell	South Central
Windsor	Henry	Henry
Winston	Daviess	Grand River

Councilor Districts and Counties in Each District



Adjacent counties with like markings are component members of hyphenated medical societies.

DISTRICT	COUNCILOR	COUNTIES
FIRST	**Richard C. Hedges, M.D.,** N. Kansas City	Andrew, Atchison, Buchanan, Caldwell, Carroll, Clay, Cli ton, Daviess, DeKalb, Gentry, Grundy, Harrison, Ho Linn, Livingston, Mercer, Nodaway, Platte and Worth
SECOND	**Patricio Avila, M.D.,** Hannibal	Adair, Chariton, Clark, Knox, Lewis, Macon, Marion, Mo roe, Pike, Putnam, Ralls, Randolph, Schuyler, Scotlan Shelby and Sullivan
THIRD	**Thomas J. Cooper, M.D.,** St. Louis **Richard H. Fallon, M.D.,** St. Louis **James M. Stokes, M.D.,** St. Louis **Robert R. MacDonald, Jr., M.D.,** St. Louis **J. Otto Lottes, M.D.,** St. Louis **Theodore L. Paletta, M.D.,** St. Louis **Frederick D. Peterson, M.D.,** St. Louis	St. Louis Metropolitan
FOURTH	**William R. Richardson, M.D.,** Union	Franklin, Gasconade, Lincoln, St. Charles and Warren
FIFTH	**H. Peter Ekern, M.D.,** Mexico	Audrain, Boone, Callaway, Camden, Cole, Cooper, Ho ard, Miller, Moniteau, Montgomery, Morgan and Osag
SIXTH	**A. J. Campbell, M.D.,** Sedalia	Bates, Benton,* Cass, Cedar, Henry, Johnson, Lafayet Pettis, Ray, St. Clair, Saline and Vernon
SEVENTH	**Irving H. Clark, M.D.,** Kansas City **Donald McIntosh, M.D.,** Kansas City **Donald A. Youmans, M.D.,** Kansas City **Larry G. Piepergerdes, M.D.,** Kansas City	Jackson
EIGHTH	**Walter A. German, M.D.,** Springfield	Barry, Barton, Christian, Dade, Dallas, Greene, Hicko Jasper, Lawrence, McDonald, Newton, Polk, Stone, Ta and Webster
NINTH	**Jack Wiles, M.D.,** West Plains	Crawford, Dent, Douglas, Howell, Laclede, Maries, O gon, Ozark, Phelps, Pulaski, Shannon,* Texas and Wri
TENTH	**George H. Ladyman, M.D.,** Poplar Bluff	Bollinger, Butler, Cape Girardeau, Carter, Dunklin, Ir Jefferson, Madison, Mississippi, New Madrid, Pemisc Perry, Reynolds, Ripley, St. Francois, Ste. Genevie Scott, Stoddard, Washington and Wayne

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* Counties with no medical organization.

List of Designated Specialty Codes

The following specialties, including General Practice, are recognized by the American Medical Association.

M	Aerospace Medicine
	Allergy
N	Anesthesiology
E	Broncho-Esophagology
D	Cardiovascular Diseases
	Dermatology
IA	Diabetes
M	Emergency Medicine
ND	Endocrinology
	Family Practice
E	Gastroenterology
P	General Practice
PM	General Preventive Medicine
ER	Geriatrics
N	Gynecology
EM	Hematology
P	Hypnosis
	Immunology
	Infectious Diseases
I	Internal Medicine
R	Laryngology
M	Legal Medicine
	Neoplastic Diseases
EP	Nephrology
	Neurology
N	Neurology, Child
	Neuropathology
M	Nuclear Medicine
R	Nutrition
S	Obstetrics
G	Obstetrics and Gynecology
M	Occupational Medicine
	Oncology
H	Ophthalmology
	Otology
O	Otorhinolaryngology
H	Pathology
P	Pathology, Clinical
FOP	Pathology, Forensic
PD	Pediatrics
PDA	Pediatrics, Allergy
PDC	Pediatrics, Cardiology
PA	Pharmacology, Clinical
PM	Physical Medicine and Rehabilitation
P	Psychiatry
CHP	Psychiatry, Child
PYA	Psychoanalysis
PYM	Psychosomatic Medicine
PH	Public Health
PUD	Pulmonary Diseases
R	Radiology
DR	Radiology, Diagnostic
PDR	Radiology, Pediatric
TR	Radiology, Therapeutic
RHU	Rheumatology
RHI	Rhinology
ABS	Surgery, Abdominal
CDS	Surgery, Cardiovascular
CRS	Surgery, Colon and Rectal
GS	Surgery, General
HS	Surgery, Hand
HNS	Surgery, Head and Neck
NS	Surgery, Neurological
ORS	Surgery, Orthopedic
PDS	Surgery, Pediatric
PS	Surgery, Plastic
TS	Surgery, Thoracic
TRS	Surgery, Traumatic
U	Surgery, Urological

In addition to the above specialties, the following designation is also used:

OS	Other, i.e., physician designated a specialty other than those appearing above.

Remember These Dates!

The Missouri State Medical Association

124th ANNUAL SESSION

will be held on

APRIL 1-4, 1982

Hyatt Regency Hotel — Kansas City

Alphabetical Roster of Members

(The alphabetical list of members includes the name and number of each member's component society.)

A

AARON, GEO	JACKSON	098
ABADA, ELEANOR S	ST LOUIS METROP	190
ABADA, ROLAND	ST LOUIS METROP	190
ABADIR, RUSHDY	BOONE	026
ABAQUETA, GAMALIEL P	JACKSON	098
ABBOUD, NABIL	ST LOUIS METROP	190
ABDEL-SALAM, AHMED S	D-H-P-D	066
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ABEL, OLIVER	ST LOUIS METROP	190
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ABELL, WALTER E	ST LOUIS METROP	190
ABELLA, BIENVENIDO Z	JACKSON	098
ABEND, MELVIN N	JACKSON	098
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ADAMS, HAROLD D	BOONE	026
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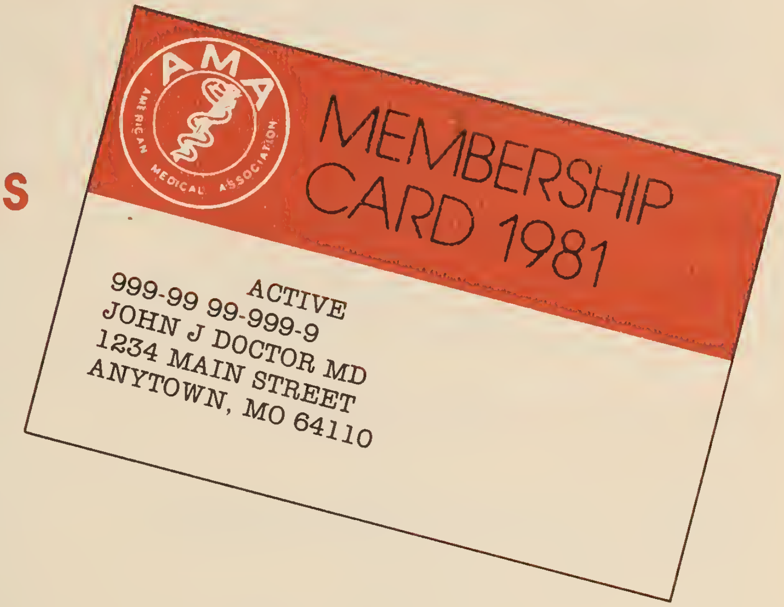
* Doctor of Osteopathy

A message from Eugene T. Hansbrough, M.D., President of the Missouri State Medical Association.

50 reasons why over 4,700 Missouri physicians are proud to carry the AMA membership card



Dear Colleagues:

Missouri is the "show me" state. So as MSMA President, I challenged the American Medical Association to show us what it has done on behalf of Missouri hysicians and our patients.

They met that challenge with fifty solid accomplishments and activities listed elow, which are just a few of the seemingly countless contributions our rofession has made through the AMA.

think it's important that you take a moment to review them if you're an AMA member because you should know what's being done with your dues dollars.

you're not a member, it's even more important. Because listed below are 50 ood reasons why you should give some thought to participating in the only rganization that speaks for all physicians—the AMA.

HE AMA REPRESENTS US IN WASHINGTON, D.C.:

- Makes thousands of contacts with members of Congress and their staff every year.
- Made nearly 100 calls on White House Staff in 1980.
- Works with state societies in drafting legislative proposals.
- Presented 200 statements to Congress during 1980.
- Sued HHS to stop publication of names of physicians and amounts each received from Medicare.
- Sued FTC to challenge its right to supersede state laws and ethical pronouncements on ophthalmic advertising. U.S. Court of Appeals agreed that FTC had gone too far.
- Requested 200 publishers to consider refusing ads for tobacco products.
- Urged networks to stop televising death-defying stunts.
- Won antitrust suit against AMA and others filed by chiropractors.
- Fought antitrust suit in which boycott of chiropractors was alleged by New York attorney general against the AMA and others.
- Worked toward repeal of health planning law.
- Effected defeat of Federal Privacy of Medical Information Act on grounds that it was a state matter.
- Supported moratorium on Patient Package Inserts.
- Urged repeal of HMO Act in statement prepared for the House Commerce Subcommittee.

THE AMA IMPROVES HEALTH CARE DELIVERY:

- Reinsures physician-owned liability companies through AMACO.
- Urged elimination of PSRO.
- Opposed rechartering of GMENAC.
- Led the Voluntary Effort for cost-effective care.
- Worked to standardize medical procedural coding and terminology through *Current Procedural Terminology/4* handbook.

THE AMA INFORMS THE PROFESSION AND THE PUBLIC:

- Publishes nine specialty journals, as well as JAMA in 4 languages. AMA journals reach over 430,000 physicians and libraries worldwide.
- Continues to be the world's largest compiler and communicator of medical and health data.
- Issues public service announcements on subjects such as nutrition and exercise, alcohol abuse, and smoking among teenagers.
- Provides the media with scientific medical information which reaches the public through radio, television, newspapers, magazines, and pamphlets.
- Published the Fourth Edition of AMA Drug Evaluations in 1980.

MAIL TO:
Attn: Membership Department
Missouri State Medical Association
113 Madison Street
P.O. Box 1028
Jefferson City, MO 65102

☐ Please send me more information about AMA membership.

☐ I want to join the AMA. Enclosed is my check for $125 (half-year dues).

Name ______________________________

Address ______________________________

City ______________________________

State ______________________________

Zip ______________________________

THE AMA IMPROVES THE QUALITY OF MEDICAL EDUCATION:

- Evaluates medical education issues through the AM Council for Medical Affairs.
- Authorizes residency review committees through th AMA Accreditation Council for Graduate Medica Education.
- Accredits CME programs through the Accreditin Council for Continuing Medical Education in conjunction with other national organizations.
- Issued over 226,000 Physician Recognition Award recognizing voluntary completion of CME requirements in 1980.
- Reviewed over 1,000 programs in related health professions in 1980.

THE AMA OFFERS MEMBERSHIP BENEFITS:

- Provides JAMA, specialty journals, and *America Medical News* to keep members informed.
- Provides comprehensive insurance programs at lowe cost than physicians could obtain as individuals.
- Conducts the nation's largest physician placemen program.
- Provides research resources through one of the nation's most up-to-date medical libraries.
- Offers Practice Management programs to give phys cians expert advice on management of physical plan and personnel, and to advise young physicians o starting or joining a practice.
- Sponsors a Members' Retirement Fund.

Remember, these are just a few of the many accomplishments physicians have made through AMA membership.

If you are not a member, please join—we can do muc more with your support. For only $125 (half the yearl dues) you can become a member of the AMA throug December 31, 1981. You'll receive JAMA and *America Medical News* weekly, as well as your choice of one nine monthly specialty journals.

Eugene Hansbrough, M.D.
President
Missouri State Medical Association

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COLUMBIA, MO 65201
GARROTTO, LEWIS J DR
814 HULEN DRIVE
COLUMBIA, MO 65201

GASTON, LAMONT W IM
M644 UNIV MO MED CTR
807 STADIUM RD
COLUMBIA, MO 65201
GAUNT, WM D IM
807 STADIUM RD
COLUMBIA, MO 65201
GOLDSTEIN, DAVID E PD
UNIV OF MO MED CTR
COLUMBIA, MO 65201
GORDON, BRUCE J AN
ANESTHESIOLOGISTS INC
P O BOX 975
COLUMBIA, MO 65201
GRAVEN, STANLEY N PD
807 STADIUM ROAD
COLUMBIA, MO 65201
GRIFFIN, WM T OBG
807 STADIUM RD
COLUMBIA, MO 65201
GROSHONG, TED D PD
UNIV OF MO MED CTR
COLUMBIA, MO 65201
GUJARATI, SUBHASH B R
E F S C H
115 BUSINESS LOOP 70 W
COLUMBIA, MO 65201
GURUCHARRI, VINCENT P TS
3401 BERRYWOOD
SUITE 104
COLUMBIA, MO 65201
HAIBACH, HELMUT NM
H S TRUMAN MEMORIAL VA
COLUMBIA, MO 65201
HALL, DAVID G OBG
807 STADIUM RD
COLUMBIA, MO 65201
HAMORY, BRUCE H IM
N406 MED CTR
COLUMBIA, MO 65212
HARDWICKE, HENRY M PM
ASHLAND, MO 65010
HARPER, MARION ORS
807 STADIUM RD
COLUMBIA, MO 65201
HARRIS, HUGH S GS
3401 BERRYWOOD DR
SUITE #104
COLUMBIA, MO 65201
HARRIS, ROBT J PD
2505 E BROADWAY
COLUMBIA, MO 65201
HARRISON, WINSTON E U
1220 SUNSET DR
COLUMBIA, MO 65201
HARRY, BRUCE E P
DEPT OF PSYCHIATRY
UNIV OF MISSOURI MED
COLUMBIA, MO 65201
HATCHETT, JOHN Q GS
M-580 UMMC
COLUMBIA, MO 65201
HAVEY, ANN D PTH
407 MAPLEWOOD
COLUMBIA, MO 65201
HAW, MARVIN T GER
1807 JACKSON ST
COLUMBIA, MO 65201
HECTOR, MELVIN G FP
DEPT OF FAMILY MEDICINE
UNIV OF MO MED CTR
COLUMBIA, MO 65201
HEIMBERG, MURRAY OS
DEPT OF PHARMACOLOGY
874 UNION AVE
MEMPHIS, TN 38163
HEIMBURGER, RICHARD A PS
1504 EAST BROADWAY
COLUMBIA, MO 65201
HELIKSON, MARY A PDS
UNIV MED CTR
COLUMBIA, MO 65201
HENRY, LAWRENCE D PTH
2703 CLARK LA
COLUMBIA, MO 65201
HENSTORF, HAROLD R R
UNIV OF MO MED CTR DEPT
COLUMBIA, MO 65201
HENZEL, JOHN H GS
1502-04 E BROADWAY
COLUMBIA, MO 65201
HICKCOX, JOHN P ORS
3205 LANSING AVE
COLUMBIA, MO 65201
HOLEKAMP, TIMOTHY OPH
3205 LANSING AVE
COLUMBIA, MO 65201
HOLMES, RICHARD A NM
1111 LAKESIDE DRIVE
COLUMBIA, MO 65201
HOYT, TERRY S DR
1012 MAPLEWOOD DR
COLUMBIA, MO 65201
HUBBELL, IRA G AN
302 MC NAB
COLUMBIA, MO 65201
HURST, DANIEL J PUD
DEPT OF MEDICINE
MO MEDICAL CENTER
COLUMBIA, MO 65201

HUSAIN, SYED A CHP
2602 JOHNSON DRIVE
COLUMBIA, MO 65201
HYATT, ROBT W IM
113 W BROADWAY
COLUMBIA, MO 65201
IDE, CARL H OPH
1008 BOURN AVE
COLUMBIA, MO 65201
IRVIN, WILLIAM S IM
DEPT OF MEDICINE
UNIV OF MO MED CTR
COLUMBIA, MO 65201
JACKSON, ROBT L PD
113 W BROADWAY
COLUMBIA, MO 65201
JAMES, ELIZABETH J PD
UNIV MO MED CTR DEPT PD
COLUMBIA, MO 65201
JAMES, RONALD C END
610 W BLVD SOUTH
COLUMBIA, MO 65201
JOHNSON, RICHARD E PTH
BOONE COUNTY HOSP
COLUMBIA, MO 65201
JONES, ROBERT S P
803 STADIUM RD
COLUMBIA, MO 65201
JOSEPH, DONALD J OTO
UNIV MO SCH OF MED
COLUMBIA, MO 65201
KAPLAN, MICHAEL F PS
1409 OVERHILL ROAD
COLUMBIA, MO 65201
KARDINAL, CARL G IM
E FISCHEL STATE CANCER
COLUMBIA, MO 65201
KAYS, KENNETH M R
4 DARWOOD PLACE
CHRISTMAN LANE
MOBERLY, MO 65270
KENNETT, JERRY D IM
401 KEENE ST
COLUMBIA, MO 65201
KEOWN, KENNETH K AN
UNIV OF MO SHCOOL MED
COLUMBIA, MO 65201
KING, ROBERT J U
3401 BERRYWOOD DR
COLUMBIA, MO 65201
KLACHKO, DAVID M IM
DEPT MED
M712MED SCI
COLUMBIA, MO 65201
KNIGHT, FRANK H R
UMCHSC - N217
COLUMBIA, MO 65212
KNUDSON, DENNIS R OTO
2100 SOUTHWOOD DR.
COLUMBIA, MO 65201
KUBIN, MILFORD T IM
541-17 MILE DR
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LABABIDI, ZUHDI A PDC
UNIV OF MO COLL OF MED
COLUMBIA, MO 65201
LACHANCE, LEOPOLD FP
110 W SNEED AVE
CENTRALIA, MO 65240
LADENSON, ROLAND P IM
16 S 10TH ST
COLUMBIA, MO 65201
LAMB, REBECCA L OBG
2307 FAIRMONT
COLUMBIA, MO 65201
LAMBERTI, JOS W P
UNIV OF MISSOURI MED CT
COLUMBIA, MO 65201
LAMPTON, LAWRENCE M PUD
807 STADIUM
COLUMBIA, MO 65201
LANDHUIS, LEO R OPH
3205 LANSING AVE
COLUMBIA, MO 65201
LEE, HUN TAE DR
1502 E BROADWAY
COLUMBIA, MO 65201
LEECH, CHAS A GP
1504 E BROADWAY
COLUMBIA, MO 65201
LEEPER, CLAUDE K PTH
UNIV OF MO MED CTR DEPT
COLUMBIA, MO 65201
LEEPER, SIDLEE W IM
1504 E BROADWAY
COLUMBIA, MO 65201
LEVINE, CLIVE R
N217 RADIOLOGY MED CTR
UNIVERSITY OF MISSOURI
COLUMBIA, MO 65201
LINDBERG, DONALD A PTH
ROUTE 4
COLUMBIA, MO 65201
LITTON, LYNN O ORS
3205 LANSING AVE
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LITWILLER, RAYMOND W GP
1312 W BROADWAY
COLUMBIA, MO 65201

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807 STADIUM RD
UMMC
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LOBECK, CHARLES C   PD
RR 4
COLUMBIA, MO 65201
LODWICK, GWILYM S   R
911 LA GRANGE
COLUMBIA, MO 65201
LOGUE, JOHN T   IM
1504 E BROADWAY ST
COLUMBIA, MO 65201
LOHMAR, ROLAND E   IM
113 W BROADWAY
COLUMBIA, MO 65201
LOPEZ, MARVIN J   GS
ELLIS FISCHEL
HIGHWAY 40 & GARTH AVE
COLUMBIA, MO 65201
LUCAS, LUKE W   P
803 STADIUM
COLUMBIA, MO 65201
LUEBRECHT, SHERI M   GS
UNIV OF MO. COLUMBIA
COLUMBIA, MO 65201
MAHONEY, JOHN P   PTH
DEPT OF PATH. M646
UNIV. OF MO. MED. CTR
COLUMBIA, MO 65201
MALEK-AHMADI, PARVIZ   CHP
201 MID-MISSOURI HEALTH
COLUMBIA, MO 65201
MALTBY, JAMES D   R
N 207 MEDICAL SCIENCES
UMC
COLUMBIA, MO 65201
MARIENFELD, CARL J   PH
807 STADIUM
COLUMBIA, MO 65201
MARKIVEE, CARROLL R   NM
VA HOSP 800 STADIUM
X-RAY DEPT
COLUMBIA, MO 65201
MC CORD, E S   AN
UNIV MED CENTER DEPT AN
COLUMBIA, MO 65201
MC DAVID, ROBERT E   OBG
203 W BROADWAY
COLUMBIA, MO 65201
MC ELROY, GLENN L   ORS
3205 LANSING AVE
COLUMBIA, MO 65201
MECHLIN, DAVID C   OTO
3205 LANSING AVE
COLUMBIA, MO 65201
MEHR, DAVID R   FP
1502 E BROADWAY
COLUMBIA, MO 65201
MEMULA, NARAYANAGOUD   TR
115 BUSINESS LOOP 70 WEST
COLUMBIA, MO 65201
MILES, JUDITH H   PD
DEPT OF CHILD HEALTH
UNIV OF MO MED CTR
COLUMBIA, MO 65201
MILLER, LEROY J   GP
1502 E BROADWAY
COLUMBIA, MO 65201
MILLIKAN, LARRY E   D
UNIVERSITY HOSP DEPT DE
COLUMBIA, MO 65201
MITCHELL, FRANKLIN L   GS
2208 DANFORTH CT
COLUMBIA, MO 65201
MITCHELL, LYNN D   IM
401 KEENE
COLUMBIA, MO 65201
MONROE, CARROLL D   P
803 STADIUM RD
COLUMBIA, MO 65201
MONTIE, JOS E   U
BOONE CLINIC
401 KEENE STREET
COLUMBIA, MO 65201
MOON, AGNES H   PM
RUSK REHABILITATION CEN
COLUMBIA, MO 65201
MORANVILLE, BENEDICT A   FP
1504 E BROADWAY
COLUMBIA, MO 65201
MORRIS, JOHN J   GP
P. O. BOX 537
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MOSBY, LARRY D   PTH
107 E BRANDON RD
COLUMBIA, MO 65201
MURNEY, RICHARD G JR   IM
TRUMAN VA HOSPITAL
807 STADIUM
COLUMBIA, MO 65201
NAVARRO, MANUEL I   R
U MO-COLUMBIA MED CTR D
COLUMBIA, MO 65201
NICHOLS, WALTER K   GS
UN OF MO MED CTR DPT GS
COLUMBIA, MO 65201
NIEUWENHUIZEN, MAARTEN   P
3916 FAUROT DR
COLUMBIA, MO 65201
NOLPH, GEORGIA J   GP
801 WESTPORT DRIVE
COLUMBIA, MO 65201
NOLPH, KARL D   IM
DIV OF NEPHROLOGY
DEPT OF MED
COLUMBIA, MO 65201
ORTH, OLIVER G   NS
11 S WILLIAMS ST
COLUMBIA, MO 65201
OSKINS, PERRY B   PTH
PATHOLOGY DEPT
UMMC
COLUMBIA, MO 65201
OVERHOLSER, MILTON D   OS
807 STADIUM ROAD
COLUMBIA, MO 65201
OXENHANDLER, RONALD W   PTH
M-646 MEDICAL SCIENCE B
COLUMBIA, MO 65201
PARKER, BRENT M   CD
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807 STADIUM
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PARRAGA, HUMBERTO C   CHP
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PEARLMAN, MILTON H   OTO
UNIV OF MO , MED. CTR
COLUMBIA, MO 65201
PEREZ-MESA, CARLOS M   PTH
ELLIS FISCHEL CANCER HO
COLUMBIA, MO 65201
PERRY, MICHAEL C   IM
807 STADIUM RD
COLUMBIA, MO 65201
PETERSON, CHAS R   PM
421 LAUREL, MERCY MED PLAZA
SUITE 400
DES MOINES, IA 50314
PEZZELLA, ANGELO T   GS
301 PROSPECT AVENUE
ST JOSEPH'S HOSPITAL
SYRACUSE, NY 13203
PFEFER, LELAND U   IM
1504 E BROADWAY
COLUMBIA, MO 65201
PICKARD, CLARENCE M   IM
113 W BROADWAY
COLUMBIA, MO 65201
PICKENS, JAMES M   PD
UNIV OF MO MED CTR
COLUMBIA, MO 65201
PINGELTON, WM B   OBG
113 W BROADWAY
COLUMBIA, MO 65201
POLITTE, LENARD L   CD
401 KEENE ST
COLUMBIA, MO 65201
PRICA, JR , GEORGE   FP
1502 E BROADWAY
COLUMBIA, MO 65201
PUCKETT, CHAS L   PS
UNIV OF MO MED CTR
M348 MED CTR 807 STA
COLUMBIA, MO 65201
QUAYLE, WILLIAM H   OPH
DOCTOR'S CENTER
7000 FANNIN SUITE 1670
HOUSTON, TX 77030
RALL, KENNETH L   R
1121 DANFORTH DRIVE
COLUMBIA, MO 65201
REINISCH, JOHN F   PS
UNIV OF MO MED CTR
COLUMBIA, MO 65201
REYNOLDS, JAMES O   IM
807 STADIUM
COLUMBIA, MO 65201
RIDENHOUR, CLARENCE E   GS
ROUTE 13 CEDAR GROVE
COLUMBIA, MO 65201
RIKLI, ARTHUR E   GPM
4003 FAUROT DR
COLUMBIA, MO 65201
ROBERTS, JOHN M   P
DEPT OF PSYCHIATRY
UNIV. MED CTR
COLUMBIA, MO 65201
RODGERS, ELRIE P   IM
BOX 993
COLUMBIA, MO 65201
ROGERS, WALLACE A   PTH
UNIV MO MED CTR DPT PTH
COLUMBIA, MO 65201
ROSENHOLTZ, MITCHELL J   PTH
103 LONGFELLOW LANE
COLUMBIA, MO 65201
ROSS, GILBERT   U
807 STADUIM
COLUMBIA, MO 65201
ROYER, JERRY A   FP
807 STADIUM
COLUMBIA, MO 65201
RUSSELL, GARTH S   ORS
BOX O
COLUMBIA, MO 65201
SAAB, SALIM B   TS
9701 NORTH KENTON
SUITE 34-35
SKOKIE, IL 60076
SADHU, VIJAY K   R
1502 E BROADWAY
COLUMBIA, MO 65201
SANDER, PAUL D   AN
W350 DEPT. ANES
807 STADIUM RD
COLUMBIA, MO 65201
SANDERS, HAROLD L   DR
1502 E BROADWAY
COLUMBIA, MO 65201
SANDOCK, KENNETH   NM
N217 MED-SCI
UNIV OF MISSOURI HOS
COLUMBIA, MO 65201
SCHEWE, ELMER J   GS
3401 BERRYWOOD
SUITE104
COLUMBIA, MO 65201
SCHOENGARTH, LOWELL D   OPH
3205 LANSING AVE.
COLUMBIA, MO 65201
SCHRAGE, JON P   IM
4419 FRONTIER TRAILS #101
AUSTIN, TX 78745
SEE, WM B   OBG
1611 UNIVERSITY AVE
COLUMBIA, MO 65201
SHAHEEN, ELEANOR   PD
UNIV MO MED CTR-PED DPT
COLUMBIA, MO 65201
SHAPERO, JAMES A   P
1301 FIELDCREST
COLUMBIA, MO 65201
SHERMAN, DAVID   N
DEPT OF NEUROLOGY
UNIV OF MO MED CTR
COLUMBIA, MO 65201
SIGHTS, WARREN P   NS
807 STADIUM
COLUMBIA, MO 65201
SILVER, DONALD   GS
807 STADIUM
COLUMBIA, MO 65201
SILVERS, ROBT G   N
610 W STEWART RD
COLUMBIA, MO 65201
SIMONDS, JOHN F   CHP
807 STADIUM
COLUMBIA, MO 65201
SINGSEN, BERNHARD H   PD
M661
UNIV OF MO MED CTR
COLUMBIA, MO 65212
SMITH, JASON N   IM
701 WEST BLVD S
COLUMBIA, MO 65201
SMITH, JOE R   OPH
1504 E BROADWAY
COLUMBIA, MO 65201
SOHA, JOSEPH J   DR
114 ARBOR DRIVE
COLUMBIA, MO 65201
SOMERS, JOHN E   N
11 S WILLIAMS ST
COLUMBIA, MO 65201
SORKIN, MICHAEL I   IM
TD 4-E 226
UNIVERSITY OF MO MED
COLUMBIA, MO 65201
SOSEBEE, LEE A   ORS
3205 LANSING AVE
COLUMBIA, MO 65201
SPURGEON, MILO J   AN
404 EDGEWOOD
COLUMBIA, MO 65201
STEPHENSON, HUGH E   TS
UNIV OF MO SCHOOL MED
COLUMBIA, MO 65201
STEWART, WELLINGTON B   PTH
COL OF MED DEPT PATH
COLUMBIA, MO 65201
STOY, ROBT P   GS
201 W BROADWAY
COLUMBIA, MO 65201
STRADFORD, H T   ORS
1444 S EL CHAPARRAL AVE
COLUMBIA, MO 65201
STRAUSBAUGH, LARRY J   IM
807 STADIUM RD
COLUMBIA, MO 65201
SUNDERRAJAN, ETTAYAPURAM V   PUD
VA HOSPITAL ROOM 408
COLUMBIA, MO 65201
TAYLOR, HENRY M   IM
UNIV OF MO MED CTR
COLUMBIA, MO 65201
TEMPLER, JERRY W   OTO
807 STADIUM
COLUMBIA, MO 65201
TERRY, BOYD E   GS
UNIV OF MO HOSP DEPT SU
COLUMBIA, MO 65201

THOMAS, HORACE E GS
1502 E BROADWAY
COLUMBIA, MO 65201
THOMAS, JAMES R OTO
3205 LANSING
COLUMBIA, MO 65201
THOMAS, ROBERT M OTO
3205 LANSING AVE AT KEE
COLUMBIA, MO 65201
TINSLEY, JOHN C IM
16 S 10TH ST
COLUMBIA, MO 65201
TRUMBOWER, WM D OBG
309 MANOR DRIVE
COLUMBIA, MO 65201
TULLY, RICHARD J DR
807 STADIUM RD
COLUMBIA, MO 65201
VAN STONE, JOHN C IM
TD 4-E
UNIV OF MO MED CTR
COLUMBIA, MO 65201
VISOT, LUIS R PM
RUSK REHAB. CTR.
COLUMBIA, MO 65201
VOGEL, CURT M GS
3707 WOODRIDGE CT
COLUMBIA, MO 65201
VU, LIEM C PTH
UNIV OF MO MED CTR.
DEPT OF PATH
COLUMBIA, MO 65201
WAGGONER, CHAS M R
201 W BROADWAY
COLUMBIA, MO 65201
WAKERLIN, GEO E US
231 EL BONITO WAY
MILLBRAE, CA 94030
WALLS, JOSEPH T CDS
UNIV OF MO MED CTR
COLUMBIA, MO 65201
WALTERS, LAURA D
1027 HICKORY HILL DR
COLUMBIA, MO 65201
WATSON, TREVOR F OBG
1504 E BROADWAY
COLUMBIA, MO 65201
WATTS, CLARK C NS
807 STADIUM
COLUMBIA, MO 65201
WEIGEL, JAMES W GP
STUDENT HEALTH
6TH STREET
COLUMBIA, MO 65201
WEINSTEIN, MARY M PD
UMMC
DEPT CHILD HEALTH
COLUMBIA, MO 65201
WEINSTEIN, STEPHEN H U
DEPT OF SURGERY
UNIV. OF MO. MED CTR.
COLUMBIA, MO 65212
WEISS, JAMES M P
UNIV OF MO MED CENTER
COLUMBIA, MO 65201
WERNER, HAROLD V IM
UNIV OF MO MEDICAL CENT
COLUMBIA, MO 65201
WHITENER, DON R IM
401 KEENE ST
COLUMBIA, MO 65201
WHITTIER, FREDERICK C IM
RR #5
COUNTRYSHIRE ESTATES
COLUMBIA, MO 65201
WIGGINS, ROLAND L IM
408 N GARTH ST
COLUMBIA, MO 65201
WILLCOX, ROGER A EM
2607 MALLARD CT
COLUMBIA, MO 65201
WILLIAMS, ANDREW F OBG
203 W BROADWAY
COLUMBIA, MO 65201
WILSON, GEO P R
P O BOX 518
COLUMBIA, MO 65205
WILSON, JOHN E OBG
401 KEENE ST
COLUMBIA, MO 65201
WINDMILLER, MYRL E GS
1504 E BROADWAY
COLUMBIA, MO 65201
WINNACKER, JOHN L IM
467 VA HOSPITAL
COLUMBIA, MO 65201
WOODRUFF, CALVIN W PD
807 STADIUM ROAD
COLUMBIA, MO 65201
YANG, HENRY K OPH
807 STADIUM ROAD
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YESUS, YOHANNES W PTH
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AHAD, ABDUL P
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AHMED, SANOBAR K P
ST.JOS.ST. HOSP BOX 263
923 POWELL ST
ST JOSEPH, MO 64502
AMES, WM H IM
902 EDMOND ST
ST JOSEPH, MO 64501
ANDRES, EDWARD H GS
1322 N 36TH ST
ST JOSEPH, MO 64506
APARICIO, SAMUEL E OBG
P O. BOX 394 FAIRLIEGH STA
ST JOSEPH, MO 64506
BALLARD, DEWEY P IM
THOMPSON BRUMM KNEPPER
ST JOSEPH, MO 64502
BARTULICA, NICHOLAS P
3400 FREDERICK
ST JOSEPH, MO 64502
BECK, PAUL M OPH
409 KIRKPATRICK BLDG
ST JOSEPH, MO 64501
BEHELER, EDWARD M GS
422 N 7TH ST
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P O BOX #1387
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1225 N 10TH ST
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1301 BUCHANAN AVE
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238 PIONEER BLDG
ST JOSEPH, MO 64501
BRENNAN, RICAHRD J ORS
1335 VILLAGE DR
ST JOSEPH, MO 64506
BRISTOW, ROBT B U
416 N 7TH
ST JOSEPH, MO 64501
BROWN, MERLIN D FP
510 FRANCIS
PIONEER BLDG SUITE 2
ST JOSEPH, MO 64501
BRYANT, SYDNEY L IM
902 EDMOND ST
ST JOSEPH, MO 64502
BUTLER, ELZA F OM
3110 DOUGLAS ST
ST JOSEPH, MO 64506
CARPENTER, GEO T IM
902 EDMOND ST
ST JOSEPH, MO 64502
CARR, DAVID A OBG
THOMPSON BRUMM KNEPPER CL
902 EDMOND ST
ST JOSEPH, MO 64502
CERZA, ROBERT F AN
11 LAKELAND ESTATES
ST. JOSEPH, MO 64506
CHALLENER, WM A IM
902 EDMOND ST
ST JOSEPH, MO 64502
CHRIST, MARTIN H A
1402 FARAON ST
ST JOSEPH, MO 64501
CORDER, ROBT L OBG
510 FRANCIS
ST JOSEPH, MO 64501
COX, JOHN P P
KIRKPATRICK BLDG
ROOM 310
ST JOSEPH, MO 64501
CRAIG, OWEN W GP
KIRKPATRICK BLDG
ST JOSEPH, MO 64501
CRAIG, RICHARD O GS
510 FRANCIS PL
ST JOSEPH, MO 64501
DAY, ROMNEY M U
1410 HIGHLAND
MC ALLEN, TX 78501
DECANINI, JESUS M P
P O BOX 11
ST JOSEPH, MO 64502
DESVALLONS, LEONARD L AN
416 N SEVENTH ST
ST JOSEPH, MO 64501
DU MONT, CLEMENT C GP
1905 FRANCIS ST
ST JOSEPH, MO 64501
DYER, GARY A D
1325 VILLAGE DR
ST JOSEPH, MO 64506
DZUBAY, JOSEPH J P
4306 STONECREST
ST JOSEPH, MO 64506

ESCOBAR, NELSON G NS
315 N 10TH
ST JOSEPH, MO 64501
FERNANDEZ, FERNANDO PD
1341 VILLAGE DR
ST JOSEPH, MO 64506
FISHER, JOS L R
7TH AND JULE
ST JOSEPH, MO 64501
FORMAN, GEO W P
2412 ASHLAND
ST JOSEPH, MO 64506
FOX, GERALD E PTH
2106 LOVERS LANE
ST JOSEPH, MO 64505
GAFFNEY, JON W PS
1201 N. WOODBINE
ST. JOSEPH, MO 64506
GARRIDO, DANTE O N
908 N BELT
ST JOSEPH, MO 64506
GARRISON, DAVID L OBG
1502 N. 36TH
ST JOSEPH, MO 64506
GHOSH, RANENDRA B P
3400 FREDERICK
ST JOSEPH, MO 64501
GONDRING, WILLIAM H ORS
1335 VILLAGE DR
ST JOSEPH, MO 64506
GRANT, CLAUDE S GP
2726 SUBLETTE WAY
ST JOSEPH, MO 64506
GRIMES, MANNING E GP
KIRKPATRICK BLDG
ST JOSEPH, MO 64501
GUNTER, JOE S U
1322 NO 36TH
ST JOSEPH, MO 64506
HARNER, CASPER G D
902 EDMOND ST
ST JOSEPH, MO 64502
HAYES, PAUL W P
610 N NOYES BLVD
ST JOSEPH, MO 64506
HEINS, DONALD E R
617 TANGLEWOOD
ST. JOSEPH, MO 64506
HERMAN, ALLEN I IM
1909 NO. 32ND ST
ST JOSEPH, MO 64506
HOWDEN, THOS L IM
2723 FRANCIS ST
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CAPE GIRARDEAU, MO 63701
WILSON, CHAS F IM
714 BROADWAY
CAPE GIRARDEAU, MO 63701
WOLFF, PAUL G OPH
1819 BROADWAY
CAPE GIRARDEAU, MO 63701
OFFUTO, ANTHONY C IM
14 DR'S PARK
CAPE GIRARDEAU, MO 63701

046—CHARITON-MACON-MONROE-RANDOLPH

GUILERA, TRINIDAD J GS
301 GRAND AVE
MOBERLY MEDICAL CLIN
MOBERLY, MO 65270
HAD, KHANDAKER A OPH
643 N MORLEY ST
MOBERLY, MO 65270
ADE, BRUCE IM
1513 UNION AVE
SUITE 1600
MOBERLY, MO 65270
BAKER, JOSEPHINE D AN
614 FISK ST
MOBERLY, MO 65270
BANGASH, JAVED I PD
WOODLAND HOSPITAL
346 WOODLAND
MOBERLY, MO 65270
BARNETT, FLOYD A GP
111 E MONROE ST
PARIS, MO 65275
BAUTISTA, ROGELIO L GS
324 CIRCLE DR
MOBERLY, MO 65270
CAMPBELL, JAMES E GP
1101 JACKSON ST
MACON, MO 63552
CHUTE, WM D PD
346 WOODLAND AVE
MOBERLY, MO 65270
COHRS, CLARENCE C A
423 E LOGAN
MOBERLY, MO 65270
COLLINS, GRETCHEN D FP
605 N RUTHERFORD ST
MACON. MO 63552
DREYER, PHILIP V GP
208 SHORT ST
HUNTSVILLE, MO 65259
EGGLESTON, DONALD E GP
410 N RUTHERFORD
MACON, MO 63552
FLEMING, DAVID A IM
423 E LOGAN
MOBERLY, MO 65270
FLEMING, JACOB W IM
346 WOODLAND AVE
MOBERLY, MO 65270
FLEMING, THOS S CD
517 FORT ST
MOBERLY, MO 65270
HUBER, LASLEY E GP
107 BRINKERHOFF
MOBERLY, MO 65270
HUDSON, GIP R GP
201 SOUTH MAIN
P O BOX 143
HUNTSVILLE, MO 65259
LAMONDA, GARY W IM
ROUTE #1
HARRISBURG, MO 65256
LEE, SOOK-LA AN
309 N ROLLINS
MACON, MO 63552
LIN, C H ODG
346 WOODLAND AVE
MOBERLY, MO 65270
LIN, H T IM
1313 UNION AVE , SUITE 1200
MOBERLY PROF ARTS BLDG
MOBERLY, MO 65270
MILLER, D H P
8555 S LEWIS
APT 201
TULSA, OK 74136
SHIN, DONG-SOO GS
309 N ROLLINS
MACON, MO 63552
STUART, DANL D GP
103 E VINE
BRUNSWICK, MO 65236
TOMPSON, ROBT V GS
423 E LOGAN
MOBERLY, MO 65270

050—CLAY

ADAMS, HOWARD D GP
WESTOWNE II
LIBERTY, MO 64068
ALBANI, FRANK J U
WESTOWNE IV
LIBERTY, MO 64068
ALLAIN, JAMES J OPH
2700 HOSPITAL DR
NORTH KANSAS CI, MO 64116
ALLEN, LOUIS A PTH
2800 HOSPITAL DR
KANSAS CITY, MO 64116
ANDERSON, ROBERT GP
11500 AMBASSADOR DR
KANSAS CITY, MO 64195
ANDREWS, BERNEIL W U
2700 HOSPITAL DR
NORTH KANSAS CI, MO 64116
ARMSTRONG, JAY H R
4812 BLACK SWAN DR
SHAWNEE MISSION, KS 66216
ARST, HERBERT E IM
408 E 68TH ST N
KANSAS CITY, MO 64118
BALHUIZEN, JOHN PUD
5601 N ANTIOCH RD
KANSAS CITY, MO 64119
BATES, GEO C CD
2700 HOSPITAL DR STE 53
NORTH KANSAS CI, MO 64116
BENSON, LARRY E IM
2700 HOSPITAL DR STE 24
NO KANSAS CITY, MO 64116
BOONE, DANL C OM
5800 N GRAND AVE
KANSAS CITY, MO 64118
BOWLES, RICHARD P FP
114 N WATER ST
LIBERTY, MO 64068
BOWNIK, THEODORE B IM
2700 HOSPITAL DR
SUITE 530
KANSAS CITY, MO 64116
BOWSER, ROBERT L AN
RT 5, BOX 95D
LIBERTY, MO 64068
BRAHMACUPTA, NANTHANA PD
116 S. STREET
EXCELSIOR SPGS., MO 64024
BRECKENRIDGE, ROBERT L PTH
SUITE 100 2700 HOSPITAL DR
KANSAS CITY, MO 64116
BRILL, JOACHIM R PD
WESTOWNE III SUITE 102
LIBERTY, MO 64068
*BUCK, FREDERICK A GS
4009 NE 59TH TERR.
KANSAS CITY, MO 64119
BURK, EMMETT K IM
WESTOWNE III
LIBERTY, MO 64068
BURROUGHS, NATHAN D PS
2700 HOSPITAL DRIVE
NORTH KANSAS CI, MO 64116
BUTTERFIELD, MARI ANNE AN
2900 NE 60TH ST
KANSAS CITY, MO 64119
CALHOUN, TERRY L IM
4030 N OAK ST
KANSAS CITY, MO 64116
CARDER, GEO A OTO
1011 SCOTT DR
RT 1 - BOX 28
LIBERTY, MO 64068
CASHIER, DWIGHT GP
P O BOX 990
PLATTE CITY, MO 64079
CASTILLO, MICHAEL E OPH
WESTOWNE V SUITE 501
LIBERTY, MO 64068
CHATKUPT, SUTHON GS
1205 N JESSE JAMES RD
EXCELSIOR SPRIN, MO 64024
CHILES, DAVID R GP
620 COMMERCIAL AVE
SMITHVILLE, MO 64089
COOK, JERRY W OPH
7010 N CHERRY
KANSAS CITY, MO 64118
COOPER, BARRY R DR
2800 HOSPITAL DR
NORTH KANSAS CI, MO 64116
COOPER, GARY D GE
SUITE 100 WESTOWNE III
LIBERTY, MO 64068
CSAKI, BELA GS
WESTOWNE IV SUITE 205
LIBERTY, MO 64068
CURNOW, RICHARD B ORS
WESTOWNE OFFICES
LIBERTY, MO 64068
DEL MURO, FRANCISCO GP
5601 ANTIOCH RD STE 8
KANSAS CITY, MO 64119
DELIGEORGES, JOHN OPH
7010 N CHERRY
KANSAS CITY, MO 64118
DENTON, ROBT E GS
SMITHVILLE CLINIC BOX E
SMITHVILLE, MO 64089
DEVINE, MARK W OTO
2700 HOSPITAL DR
NORTH KANSAS CI, MO 64116
DOLAN, CHARLES T PTH
ST JOHN'S MED CTR
1923 S UTICA AVE
TULSA, OK 74104
DUNHAM, ROBT H GP
6022 ANTIOCH RD
KANSAS CITY, MO 64119
DY-RAGOS, RAMON R NS
10106 NW 74TH ST
KANSAS CITY, MO 64152
EDWARDS, THEODORE F PD
2029 BURLINGTON AVE
NORTH KANSAS CI, MO 64116
FAKHOURY, DONALD A GP
4030 N OAK ST TRAFFICWA
KANSAS CITY, MO 64116
FISCHER, EDWARD H CD
2929 BALTIMORE
KANSAS CITY, MO 64108
FISCHER, JOSE M P
2900 HOSPITAL DRIVE
KANSAS CITY, MO 64116
FLANDERS, VIRGIL E FP
5601 N E ANTIOCH RD
KANSAS CITY, MO 64119
FORTIN, DON G PS
2900 N E 60TH ST
SUITE 204
KANSAS CITY, MO 64119

FOWLER, I C 631 FT DUQUESNA DR. SUN CITY CENTER, FL 33570	OM
GALBOL, HARLEY I 112 E. BROADWAY EXCELSIOR SPGS., MO 64024	GP
GAUER, ROBT J 5601 ANTIOCH RD KANSAS CITY, MO 64119	PD
GERAGHTY, THOMAS E 2900 NE 60TH ST. KANSAS CITY, MO 64119	PS
GUKHOOL, PREMLALL 2525 GLENN HENDREN DR LIBERTY, MO 64068	DR
HAAS, ROBERT W SUITE R WESTOWNE OFFICE LIBERTY, MO 64068	ORS
HAGAN, JOHN C 2700 HOSPITAL DR NO KANSAS CITY, MO 64116	OPH
HALEY, TED M 405 E 19TH AVE KANSAS CITY, MO 64116	GP
HARVEY, THOMAS S 540 MAIN WESTON, MO 64098	GP
HAYES, LAWRENCE L 8630 N OAK ST TRFWY KANSAS CITY, MO 64155	GP
HEDGES, RICHARD C 2025 SWIFT NORTH KANSAS CI, MO 64116	OM
HEIM, MARY L 5408 FOXHILL RD KANSAS CITY, MO 64152	EM
HENDREN, THOS H WESTOWNE III STE 101 LIBERTY, MO 64068	GS
HENRY, JOS E 8901 W 74TH ST. SUITE 348 SHAWNEE MISSION, KS 66208	IM
HERTENSTEIN, JOHN R WESTOWNE III, SUITE 102 LIBERTY, MO 64068	PD
HODGE, ROBT H 2204 NE 39TH ST KANSAS CITY, MO 64116	IM
ISE, FRANK H 2030 SWIFT AVE NORTH KANSAS CI, MO 64116	ORS
KATF, NICOLA Y 2900 HOSPITAL DR KANSAS CITY, MO 64116	P
KAUK, BRUCE A 2029 BURLINGTON NO. KANSAS CITY, MO 64116	IM
KELLY, JOSEPH G P O BOX 295 LIBERTY, MO 64068	AN
KUENZI, DONALD E 8630 N OAK TRFWY KANSAS CITY, MO 64155	FP
*LANDERS, GARY A 2800 HOSP DR NO. KANSAS CITY, MO 64116	EM
LATIMER, WALTER N 5140 NE ANTIOCH RD KANSAS CITY, MO 64119	PD
LESLIE, STEPHEN A 2700 HOSPITAL DR NO KANSAS CITY, MO 64116	PDA
LILA, ARAM 1205 N JESSE JAMES RD EXCELSIOR SPGS , MO 64024	IM
LITTLEJOHN, ROBERT T 2700 HOSPITAL DR NO KANSAS CITY, MO 64116	ORS
LLANES-RODAS, RIZALINA 2700 HOSPITAL DR KANSAS CITY, MO 64116	PD
MAHONEY, JOHN J TWA MED SERVICES P O BOX 20007 KANSAS CITY, MO 64195	AM
MC CALLA, JOHN P 649 HUNTINGTON RD KANSAS CITY, MO 64113	AN
MC CANSE, LYNN R SUITE 200 2700 HOSPITAL DR NO KANSAS CITY, MO 64116	U
MC CLUGGAGE, NEWTON C 2700 HOSPITAL DR NO KANSAS CITY, MO 64116	IM
MC CORMICK, JAMFS E 4030 N OAK ST KANSAS CITY, MO 64116	GP
MC CRAY, STEPHEN A 2900 N E 60TH ST KANSAS CITY, MO 64119	AN
MC PHEE, WM R 1205 W 76TH ST KANSAS CITY, MO 64114	PTH
MULLINS, BERNARD L 405 E 19TH ST NO KANSAS CITY, MO 64116	GP
MYERS, CARL M PLATTE MEDICAL CLINIC P O BOX 990 PLATTE CITY, MO 64079	FP
MYERS, DAVID W 610 S COMMERCIAL AVE SMITHVILLE, MO 64089	OBG
NOURBAKHSH, MAHMOUD M 405 E 19TH AVE NO KANSAS CITY, MO 64116	GS
*OLMSTEAD, JOHN P 2025 SWIFT NO KANSAS CITY, MO 64116	OM
PATTERSON, CARROLL D SUITE 202 WESTOWNE IV LIBERTY, MO 64068	P
PILEGGI, FELIX A 405 E 19TH ST NO KANSAS CTIY, MO 64116	GP
PINGLETON, WILLIAM W 8901 W 74TH ST SUITE 348 SHAWNEE MISSION, KS 66204	PUD
PIONTEK, JAMES F BOX 295 LIBERTY, MO 64068	AN
PRATHER, WILLIAM R 2029 BURLINGTON NO. KANSAS CITY, MO 64116	IM
PURCELL, PAUL W P O BOX D-2 SMITHVILLE, MO 64089	GP
RASMUSSEN, MICHAEL A 8001 NW LONDON DR KANSAS CITY, MO 64151	IM
REEDER, CHAS C 620 COMMERCIAL AVENUE SMITHVILLE, MO 64089	GP
REVARE, PAUL SPELMAN MEM HOSP SMITHVILLE, MO 64089	FP
ROBINSON, VAN M 300 PROFESSIONAL BLDG 2700 HOSPITAL DRIVE KANSAS CITY, MO 64116	OBG
ROCKWELL, WAYNE L 2700 HOSPITAL DRIVE KANSAS CITY, MO 64116	OBG
ROSS, WALTER R JR SUITE 100 WESTOWNE III LIBERTY, MO 64068	PUD
SANDERS, GEO E 617A WILLOW DR LEE'S SUMMIT, MO 64063	GP
SAWYER, FLOYD E 5350 N OAK ST TRAFFICWA KANSAS CITY, MO 64118	PD
SCHERTZ, TRUMAN B 2700 HOSPITAL DR STE 400 NO KANSAS CITY, MO 64116	OPH
SCHUTZ, JOHN P 1236 JESSE JAMES ROAD EXCELSIOR SPGS, MO 64024	US
SIMON, GRACITA S 1020 N WOODLAND DR KANSAS CITY, MO 64118	AN
SLAUGHTER, CARL R 5601 N E ANTIOCH RD. SUITE 1 KANSAS CITY, MO 64119	OBG
*SMITH, CHAS H 2025 SWIFT KANSAS CITY, MO 64116	OM
SOMOZA, JOSE R 15 N E HILL ST KANSAS CITY, MO 64116	PTH
SOPER, WM D 11 WESTOWNE CTR LIBERTY, MO 64068	FP
SPORTSMAN, WELDON L 7504 N OAK ST TRFY KANSAS CITY, MO 64118	A
STRATMAN, CLARENCE A 6002-A N ANTIOCH RD KANSAS CITY, MO 64119	FP
TADEO, ROMANITO A SPELMAN MEM HOSP SMITHVILLE, MO 64089	AN
TANEY, GARY W 2700 HOSPITAL DR SUITE 5 NO. KANSAS CITY, MO 64116	OBG
THOMAS, FRED A 5601 N ANTIOCH KANSAS CITY, MO 64119	D
THOMAS, THOMAS C 104 S EOREST AVE LIBERTY, MO 64068	GP
TRIPLETT, DANL A 2700 HOSP DR STE 500 NO KANSAS CITY, MO 64116	OBG
TRUE, JAMES D TRI-CNT COM MNT HLTH CT 2900 HOSPITAL DR KANSAS CITY, MO 64116	US
TUMANUT, BENESTO F 504 NE 70 GLADSTONE, MO 64118	OTO
UNDERWOOD, JOHNSON 5140 N E ANTIOCH RD KANSAS CITY, MO 64119	GS
VILMER, CHARLES E 2030 SWIFT AVE NORTH KANSAS CI, MO 64116	ORS
VILMER, STEPHEN E 7550 W 99TH TERR SHAWNEE MISSION, KS 66212	ORS
WALD, DONALD M 1608 N E 69TH ST KANSAS CITY, MO 64118	R
WALTZ, JAMES R WESTOWE III SUITE 101 LIBERTY, MO 64068	GS
WATERMAN, FRANKLIN M 101 W KANSAS LIBERTY, MO 64068	GP
WEBB, JOHN M 525 PROFESSIONAL BLDG N 2700 HOSPITAL DR KANSAS CITY, MO 64116	GS
WEIDE, ALLAN R P.O.BOX 12361 2700 HOSP DR-SUITE 200 NO. KANSAS CITY, MO 64116	U
WERNER, DEAN F 2025 SWIFT AVE NORTH KANSAS CI, MO 64116	OM
WERNER, FRANKLIN C 5140 ANTIOCH RD KANSAS CITY, MO 64119	GS
WHEELER, PAUL D 2700 HOSPITAL DR SUITE KANSAS CITY, MO 64116	OBG
WICKS, EDWIN O 506 NW 43RD ST KANSAS CITY, MO 64116	PH
WILLIAMS, JOHN M 102 S FOREST LIBERTY, MO 64068	GP
WILLIAMS, ROBT D 6700 TROOST AVE KANSAS CITY, MO 64131	TS
WILLIAMSON, GEO L 2030 SWIET KANSAS CITY, MO 64116	ORS
WILSON, DAVID E 8630 N OAK TRAFEICWAY KANSAS CITY, MO 64155	FP
WITHROW, JOHN B 3925 N MAIN KANSAS CITY, MO 64116	FP
WOEHL, JOS J 4320 WORNALL SUITE 311 KANSAS CITY, MO 64111	N
WOLFRAM, PHILIP H 620 COMMERCIAL ST SMITHVILLE, MO 64089	GP
WORKMAN, CHAS E 2700 HOSPITAL DR SUITE NORTH KANSAS CI, MO 64116	ORS
WOY, GEORGE H SUITE 700 WESTOWNE VII LIBERTY, MO 64068	ORS
WRIGHT, EARL J 2800 HOSPITAL DRIVE KANSAS CITY, MO 64116	PTH

054—CLINTON

LUCKENBILL, PAUL T BOX 353 PLATTSBURG, MO 64477	GP
OZENBERGER, LARRY A 400 CLAY AVE PLATTSBURG, MO 64477	GP
ROBERTS, THEODORE W 400 W CLAY PLATTSBURG, MO 64477	GP
SPALDING, WILBER B PLATTSBURG, MO 64477	GP
SWEIGER, JAMES H ROUTE 1 PLATTSBURG, MO 64477	GP

058—COLE

AKHTER, MOHAMMAD N BROADWAY ST OFFICE BLDG JEFEERSON CITY, MO 65102	GPM
ALLAN, JAMES E 2709 INDUSTRIAL DR SUITE A JEFFERSON CITY, MO 65101	FP
BAKER, CARL N BOX 236 JEFFERSON CITY, MO 65101	FP
BELDEN, EDGAR A 2124 LOWELL JEFFERSON CITY, MO 65101	PH
BOWE, EDWIN E 3441 N TEN MILE DR JEEEERSON CITY, MO 65101	AN
BOYER, PETER A 1505 SOUTHWEST BLVD JEFFERSON CITY, MO 65101	IM

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* Doctor of Osteopathy.

BRAUN, ALAN L IM
2709 INDUSTRIAL
JEFFERSON CITY, MO 65101
BREGANT, ROBT E IM
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
BUSBY, WM E PD
1233 JEFFERSON
JEFFERSON CITY, MO 65101
CLARK, KENDALL A GE
RT 4 BOX 421
FULTON, MO 65251
COOPER, CHAS W FP
423 CHERRY ST
JEFFERSON CITY, MO 65101
COURTER, LARRY P R
1800 S W BLVD
JEFFERSON CITY, MO 65101
COX, CURTIS S NS
1433 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
COX, WM A FP
812 SWIFTS HIGHWAY
JEFFERSON CITY, MO 65101
DAVISSON, WALTER F OPH
611 WEST ELM
JEFFERSON CITY, MO 65101
DOERHOFF, ADELIA L AN
1111 MADISON
JEFFERSON CITY, MO 65101
DOERHOFF, ALAN R GS
1111 MADISON
JEFFERSON CITY, MO 65101
EXON, C S GS
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
FALZONE, JOHN J U
1025 NORTH EAST DRIVE
UROLOGY CARE INC
JEFFERSON CITY, MO 65101
FILES, JAMES D PTH
SHAMROCK ROAD NORTH
STAR ROUTE 2
JEFFERSON CITY, MO 65101
FULLGRABE, EMIL A GP
1914 GREEN MEADOW DR
JEFFERSON CITY, MO 65101
GARNER, LYNN M PH
403 MEIER DR
JEFFERSON CITY, MO 65101
GARNER, ROYAL S FP
1804 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
GORDON, JAMES S AN
600 BOONVILLE RD
JEFFERSON CITY, MO 65101
GUHLEMAN, HENRY V P
506 E HIGH ST
JEFFERSON CITY, MO 65101
GUNN, VICTORIA D
BOX 1642
JEFFERSON CITY, MO 65101
HANDLER, FRED P PTH
614 BOONVILLE ROAD
JEFFERSON CITY, MO 65101
HAUSER, ROBT J OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
HERLAND, ALEXANDER OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
HUGHES, DEREK P
DRS PARK
1111 MADISON
JEFFERSON CITY, MO 65101
KANAGAWA, HAROLD K IM
701 W HIGH
JEFFERSON CITY, MO 65101
KLEBBA, LARRY B FP
P O BOX 403
JEFFERSON CITY, MO 65101
KRAUTMANN, JOHN J ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
LANDSBAUM, CHARLES J GE
701 W HIGH ST
JEFFERSON CITY, MO 65101
LESLIE, JAMES T ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
LOYD, EARL I IM
RIVIERA HEIGHTS
HOLTS SUMMIT, MO 65043
LYSKOWSKI, JOHN C P
209 JEFFERS CT
IOWA CITY, IA 52240
MARTY, DAVID R OTO
1021 NORTHEAST DR
JEFFERSON CITY, MO 65101
MATTHEWS, JOHN I IM
1314 MOREAU DR
JEFFERSON CITY, MO 65101
MC CAFFREE, MARY K IM
812 CRESTMERE
JEFFERSON CITY, MO 65101
MC HANEY, JOHN W GP
1819 BROOKSIDE
JEFFERSON CITY, MO 65101

MCELROY, GEORGE L III PD
1233 SO. JEFFERSON
JEFFERSON CITY, MO 65101
MEIER, FRANCIS X GP
1913 HAYSELTON DR
JEFFERSON CITY, MO 65101
*NEMER, ROBT J GP
VIENNA, MO 65582
OSSMAN, JULIAN A GS
2407 W MAIN
JEFFERSON CITY, MO 65101
RAGLAND, JOHN E GP
P O BOX 517
LINN, MO 65051
REA, JAMES L OTO
1021 NORTHEAST DR.
JEFFERSON CITY, MO 65101
RYAN, THOMAS J ORS
1433 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
SANDERS, JACK S CD
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
SCEARCE, ROBERT L DR
420 CRYSTAL VIEW TERR.
JEFFERSON CITY, MO 65101
SCHERR, DAVID D ORS
1111 MADISON ST
JEFFERSON CITY, MO 65101
SCHMIDT, JEROME H U
1025 NORTH EAST DRIVE
JEFFERSON CITY, MO 65101
SCHOKKER, JOHANNES GS
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
SCOTT, EARL D GP
2009 E MC CARTY
JEFFERSON CITY, MO 65101
SENNOTT, JOHN S PD
1593 S. W O'HARA DR
PORT CHARLOTTE, FL 33952
SHULL, G D FP
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
SIU, KENNETH K GS
915 A LESLIE BLVD
JEFFERSON CITY, MO 65101
STAUFFER, HARRY B OPH
830 BOONVILLE RD
JEFFERSON CITY, MO 65101
STAUFFER, LARRY K OPH
700 W HIGH ST
JEFFERSON CITY, MO 65101
STRICKER, HAROLD C OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
SU, PHILO S OBG
418 VALLEY PARK DR
JEFFERSON CITY, MO 65101
SUGARBAKER, EVERETT D GS
503 E HIGH ST
JEFFERSON CITY, MO 65101
SUMMERS, JOS S DR
515 EAST CAPITAL AVE #E
JEFFERSON CITY, MO 65101
TANNER, ROBT H FP
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
TAYLOR, LEON A GP
1104 W MAIN ST
JEFFERSON CITY, MO 65101
VAN VRANKEN, EUGENE F PH
BOX 570
JEFFERSON CITY, MO 65101
WANKUM, ROBERT P OPH
1101-D SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WATTS, BYRON E R
2937 VALLEY VIEW TERR.
JEFFERSON CITY, MO 65101
WEISS, JAMES J FP
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WERTH, JOS A D
1233 JEFFERSON ST
JEFFERSON CITY, MO 65101
WESTHOFF, DAVID D IM
1505 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101
WHITE, NELSON P FP
420 E HIGH ST
JEFFERSON CITY, MO 65101
WINEGAR, ALVON C OBG
1431 SOUTHWEST BLVD
JEFFERSON CITY, MO 65101

062—COOPER

ABELE, WM A IM
620 MAIN ST
BOONVILLE, MO 65233
AVERY, WILLARD B PD
329 MAIN ST
BOONVILLE, MO 65233
DEBOARD, JAMES W AN
1000 W TEN STREET
ROLLA, MO 65401
HATA, DAIKICHI IM
SIXTH & SPRING ST
BOONVILLE, MO 65233
HUMPHREYS, EDWARD T GS
SIXTH & SPRING ST
BOONVILLE, MO 65233
JUDY, JOS D IM
420 MAIN ST
BOONVILLE, MO 65233
STUART, BYRON M IM
910 SHAMROCK TERRACE
BOONVILLE, MO 65233
WINN, GEO W GS
6TH & SPRING ST
BOONVILLE, MO 65233

066—DALLAS-HICKORY-POLK-DADE

ABDEL-SALAM, AHMED S GS
RT #1 PRAIRE HEIGHT
BOLIVAR, MO 65613
CARNELL, BILLY M GP
BUFFALO MED CENTER-BOX
BUFFALO, MO 65622
GRIFFIN, M E PM
P. O. BOX E-6
BUFFALO, MO 65622
GRIFFIN, OLIN A PH
BUFFALO, MO 65622
MC CRAW, DOYLE C GP
711 N MAIN
BOLIVAR, MO 65613
MC NEEL, LEE A IM
GREENFIELD, MO 65661
RIOS, RUTH S FP
451 SOUTH ALBANY
BOLIVAR, MO 65613
TRACHTMAN, NEIL G GP
257-55 148TH AVENUE
ROSEDALE, NY 11422

070—DUNKLIN

CASH, CHAS R GP
DUNMIRE AND CASH CLINIC
KENNETT, MO 63857
CHENG, TUAN CHOU U
P. O BOX 309
KENNETT, MO 63857
DEMENT, OMAN E OBG
501 TEACO RD
KENNETT, MO 63857
ENGLISH, WALLACE D GP
P O BOX 107
CARDWELL, MO 63829
GREEN, JAMES R OBG
501 TEACO RD
KENNETT, MO 63857
KUNTZE, RANDALL P US
501 TERRACE RD
KENNETT, MO 63857
LEGAN, JOHN K GS
MEDICAL DEPT
USS NIMITZ(CUN-68)
FPO, NY 09542
MANUBAY, TERESITA PD
204 W LINDEN CIRCLE
KENNETT, MO 63857
MANUBAY, THEODORO R
204 W LINDEN CIRCLE
KENNETT, MO 63857
MILTENBERGER, PAUL C GS
211 TEACO RD
KENNETT, MO 63857
MOREHEAD, WM E GP
505 N BECKWITH
MALDEN, MO 63863
PALENSKE, ROBT L GP
HORNERSVILLE, MO 63855
PU, PIN H PTH
P O BOX 827
KENNETT, MO 63857
SINASA, SURAT PTH
501 TEACO RD
KENNETT, MO 63857
SISLER, MAYNARD L IM
217 COLLEGE
KENNETT, MO 63857
SOONATTRAKUL, WUTHISAK IM
1616 W WASHINGTON
KENNETT, MO 63857
TARVER, QUINTON GP
919 S JACKSON ST BOX 647
KENNETT, MO 63857
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COFER, THOS N IM
511 ELM P O BOX 905
CHILLICOTHE, MO 64601

CONRAD, JOS A GP
511 ELM ST
P O BOX 905
CHILLICOTHE, MO 64601

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618 E FIRST ST
TRENTON, MO 64683

DAILEY, FRANK R GP
HAMILTON, MO 64644

DIXON, JOHN R GS
125 E LOCKLING ST
BROOKFIELD, MO 64628

DUFFY, OLIVER E US
902 CUSTER
TRENTON, MO 64683

ELLSWORTH, WILLARD GP
CAINSVILLE, MO 64632

FAIR, WM L FP
910 CLAY ST
CHILLICOTHE, MO 64601

GALE, JOS F GP
103 11TH ST
CHILLICOTHE, MO 64601

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105 S KANSAS
MARCELINE, MO 64658

GARY, GEO GP
121 N KANSAS
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NIXON, EDWARD E GP
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PARK, YOUNG F PTH
2534 W 29TH ST
JOPLIN, MO 64801

PLATZ, JOHN H GP
16 N MONROE ST
CARROLLTON, MO 64633

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187 36TH AVE N W
ROCHESTER, MN 55901

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BROOKFIELD, MO 64628

RIVERA, PEPITO C GS
308 NO MAIN
BROOKFIELD, MO 64628

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BROOKFIELD, MO 64628

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CARROLLTON, MO 64633

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MACON, MO 63552

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AUNER, CECIL R IM
600 S GLENSTONE
SPRINGFIELD, MO 65802

BACK, DONALD K IM
1211 S GLENSTONE
SPRINGFIELD, MO 65804

BAGBY, JACK M JR IM
1550 E SUNSHINE
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BAILEY, ALAN H PUD
609 CHERRY ST
221 PROFESSIONAL BLD
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SPRINGFIELD, MO 65802

BARNHILL, FLOYD R OTO
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SPRINGFIELD, MO 65804

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BENNOCH, SHANE L PD
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1423 N JEFFERSON
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BENSON, RONALD G OBG
404 E BATTLEFIELD
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BENTLEY, JOHN D IM
1900 S NATIONAL SUITE 2
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BERRY, PAUL T FP
1740 S GLENSTONE OEF O
SPRINGFIELD, MO 65804

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BOLES, ROBERT D GS
1211 SOUTH GLENSTONE
SPRINGFIELD, MO 65804

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1179 KIRKHAM
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BONEBRAKE, MAC D OBG
609 CHERRY ST
304 PROFESSIONAL BLD
SPRINGFIELD, MO 65806

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RT 2 BOX 315
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2912 S BRENTMOOR
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208 MEDICAL TOWER
SPRINGFIELD, MO 65802

BRIAN, WM J AN
229 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806

BRIGHT, JAMES E	2003 E. SUNSHINE SUITE J SPRINGFIELD, MO 65804	P
BROADDUS, LOREN E	1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
BROOKS, JOHN E	609 CHERRY 406 PROFESSIONAL BLD SPRINGFIELD, MO 65806	N
BROWN, DAVID W	609 CHERRY ST SPRINGFIELD, MO 65806	ORS
BROWN, JAMES T	2222 E BERKELEY SPRINGFIELD, MO 65804	CD
BURKEY, JORDAN W	410 PROF BLDG SPRINGFIELD, MO 65806	OTO
BUSIEK, ERWIN F	609 CHERRY 319 PROFESSIONAL BLD SPRINGFIELD, MO 65806	PD
BUSIEK, PAUL J	1717 E GRAND SPRINGFIELD, MO 65804	PD
BUSIEK, URBAN J	609 CHERRY ST 319 PROF BLDG SPRINGFIELD, MO 65806	PD
BUSSMANN, DONALD W JR	3741 E SUGAR HILL SPRINGFIELD, MO 65804	U
BUSSMANN, YVONNE C	1211 S GLENSTONE SPRINGFIELD, MO 65804	PD
CALLAWAY, GUY D	901 E PORTLAND SPRINGFIELD, MO 65804	IM
ANLAS, MARIO P	205 MEDICAL TOWERS SPRINGFIELD, MO 65802	NS
ARLTON, LYNN N	403 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	DR
AROLLA, ROBERT L	1900 SOUTH NATIONAL SUITE 2800 SPRINGFIELD, MO 65804	IM
ARR, PHILLIP W	1211 S GLENSTONE SPRINGFIELD, MO 65804	CD
HRISTENSEN, HAROLD L	1550 SUNSHINE SPRINGFIELD, MO 65804	CD
HRISTY, RAYMOND A	1211 S GLENSTONE ST SPRINGFIELD, MO 65804	PD
LARKE, MICHAEL J	3530 E CATALPA SPRINGFIELD, MO 65804	GS
LARKE, MICHAEL S	1900 S. NATIONAL SUITE 1950 SPRINGFIELD, MO 65804	ORS
LARY, WM F	1900 S NATIONAL SPRINGFIELD, MO 65804	P
LAWSON, JAMES W	609 CHERRY 305 PROFESSIONAL BLD SPRINGFIELD, MO 65806	GS
LAYTON, EDGAR L	609 CHERRY ST 103 PROFESSIONAL BLD SPRINGFIELD, MO 65806	PDA
OCHRAN, THOS E	1211 S GLENSTONE ST SPRINGFIELD, MO 65804	CD
OLLER, FREDERICK C	2108 E CAMBRIDGE SPRINGFIELD, MO 65804	NM
LLINS, DOUGLASS D	1900 S NATIONAL SUITE 2900 SPRINGFIELD, MO 65804	PD
NRAD, RAYMOND C	609 CHERRY ST 117 PROFESSIONAL BLD SPRINGFIELD, MO 65806	OBG
OK, JAMES R	2333 E GLENWOOD SPRINGFIELD, MO 65804	AN
OPER, CLAUDE W	121 S GLENSTONE SPRINGFIELD, MO 65804	CD
RDONNIER, JAMES K	1550 E SUNSHINE SPRINGFIELD, MO 65804	GS
RRY, FRANCIS M	1211 S GLENSTONE SPRINGFIELD, MO 65804	GS
SCIA, ROBERT L	501 MEDICAL TOWER SPRINGFIELD, MO 65802	GS
ULTER, JAMES W	BOX 192C RT 3 ROGERSVILLE, MO 65742	PUD
CRAWFORD, ORAL B	609 CHERRY 229 PROF BLDG SPRINGFIELD, MO 65806	AN
CRIGHTON, JOHN C	501 MEDICAL TOWER SPRINGFIELD, MO 65802	GS
CROSTHWAIT, EDWARD L	1305 BATTLEFIELD SPRINGFIELD, MO 65804	GP
CUNNINGHAM, D D	1715 BOONVILLE AVE SPRINGFIELD, MO 65803	GP
CUNNINGHAM, RICHARD D	609 CHERRY ST. SPRINGFIELD, MO 65801	IM
DANIELSSON, ERNST P	3324 E REDBUD LANE SPRINGFIELD, MO 65804	PS
DECKARD, SHELBY W	2256 E MEADOW SPRINGFIELD, MO 65804	IM
DEXTER, JOHN K	609 CHERRY SPRINGFIELD, MO 65806	IM
DILLARD, ERIN M	118 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	ORS
DILLS, JOS N	1554 S CAMPBELL SPRINGFIELD, MO 65804	GS
DOMANN, DARREL D	508 MEDICAL TOWER SPRINGFIELD, MO 65802	PS
DOWELL, J L	BOX 39 STRAFFORD, MO 65757	GP
DUENSING, GEORGE F	1964 E VINCENT SPRINGFIELD, MO 65804	PTH
DUNCAN, DOUGLAS M	1550 E SUNSHINE SPRINGFIELD, MO 65804	ORS
DUNCAN, ROBT D	1550 E SUNSHINE ST SPRINGFIELD, MO 65804	GS
EARLS, JIM H	407 PROFESSIONAL BLDG 609 CHERRY ST SPRINGFIELD, MO 65806	P
ELKINS, RONALD F	2830 E GLENWOOD ST SPRINGFIELD, MO 65804	CRS
ELLIS, FRANCIS J	304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG
ELLIS, HARRY L	115 PROF BLDG SPRINGFIELD, MO 65806	U
ENKVETCHAKUL, BOONMEE	3573 E WHITEHALL SPRINGFIELD, MO 65804	AN
EVANS, EZRA L	2457 E BARATARIA ST SPRINGFIELD, MO 65804	PD
FARBER, BARRY S	1900 S NATIONAL #2700 SPRINGFIELD, MO 65804	U
FARTHING, GENE W	2030 S NATIONAL SPRINGFIELD, MO 65804	GS
FERGUSON, JOHN F	234 PROF BLDG SPRINGFIELD, MO 65806	NS
FERGUSON, JOHN L	1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
FERGUSON, JOHN P	609 CHERRY 304 PROFESSIONAL BLD SPRINGFIELD, MO 65806	OBG
FERRELL, THOS E	1550 E SUNSHINE SPRINGFIELD, MO 65804	GS
FINK, ROGER L	204 MEDICAL TOWER SPRINGFIELD, MO 65804	PTH
FITE, JAMES E	LESTER COX EMERGENCY RO 1423 JEFFERSON SPRINGFIELD, MO 65802	EM
FOGERSON, VIRGINIA L	227 E CHESTNUT EXPRESSWAY SPRINGFIELD, MO 65802	GP
FOGLE, PHILIP R	1900 S NATIONAL SPRINGFIELD, MO 65804	OBG
FROEHLICH, THOMAS W	1900 SOUTH NATIONAL SUITE #2800 SPRINGFIELD, MO 65804	IM
GASKA, WALTER J	1211 S GLENSTONE SPRINGFIELD, MO 65804	PS
GENTRY, MERRITT L	1012 EAST CAMBRIDGE SPRINGFIELD, MO 65804	PH
GENTRY, MICHAEL A	1722 K S GLENSTONE SPRINGFIELD, MO 65804	D
GERDES, JOHN A	ST JOHNS HOSPITAL SPRINGFIELD, MO 65804	PTH
GERMAN, WALTER A	1211 S GLENSTONE SPRINGFIELD, MO 65804	OBG
GIDDINGS, FRANK C	208 MEDICAL TOWER SPRINGFIELD, MO 65804	R
GILL, PAUL J	1211 S GLENSTONE SPRINGFIELD, MO 65803	IM
GLOVER, JACK F	1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
GOODWIN, JOHN W	1211 S. GLENSTONE SPRINGFIELD, MO 65804	IM
GOSE, DON F	1550 E SUNSHINE ST SPRINGFIELD, MO 65804	GS
GRACE, STEVE	304 PROFESSIONAL BLDG SPRINGFIELD, MO 65806	OBG
GRANT, RUTH	1900 SO NATIONAL SUITE 2800 SPRINGFIELD, MO 65804	IM
GRIESEMER, BERNARD A	3014 J E SUNSHINE SPRINGFIELD, MO 65804	PD
GUTZMER, ERNEST W	2714 E GLENWOOD SPRINGFIELD, MO 65804	PUD
GWIN, EDWARD	1550 E SUNSHINE SPRINGFIELD, MO 65804	IM
H'DOUBLER, CHAS E	406 MEDICAL TOWER SPRINGFIELD, MO 65802	GS
H'DOUBLER, FRANCIS T	1900 S. NATIONAL SUITE 2950 SPRINGFIELD, MO 65804	GP
H'DOUBLER, PETER B	302 PROF BLDG SPRINGFIELD, MO 65806	GS
HAEN, CHAS J	1630 N JEFFERSON SPRINGFIELD, MO 65803	GP
HALL, DAVID W	ROUTE 2 ROGERSVILLE, MO 65742	FP
HALL, DURWARD G	2442 S FREMONT SPRINGFIELD, MO 65804	GS
HAMBURG, FREDERIC L	1900 S. NATIONAL SUITE 2900 SPRINGFIELD, MO 65804	PD
HANAN, ERNEST B	724 EAST KINGSBURY SPRINGFIELD, MO 65802	PTH
HANSS, ARMAND W	642 S MISSION SPRINGFIELD, MO 65804	IM
HARGIS, JAMES L	1211 S GLENSTONE SPRINGFIELD, MO 65804	IM
HARMON, BEN C	1211 S GLENSTONE ST SPRINGFIELD, MO 65804	ORS
HARRISON, STRATTON W	410 PROF BLDG SPRINGFIELD, MO 65806	OPH
HARVEY, HAROLD D	2030 S NATIONAL SPRINGFIELD, MO 65804	PS
HAWKINS, CALVIN D	3523 S CARA LANE SPRINGFIELD, MO 65804	R
HAYES, STANLEY P	1211 S GLENSTONE SPRINGFIELD, MO 65804	IM
HEINZ, GEORGE	1900 S NATIONAL SPRINGFIELD, MO 65804	IM
HELLAM, DUANE C	419 PROFESSIONAL SPRINGFIELD, MO 65806	CD
HERFKENS, KENNETH D	1900 S NATIONAL SPRINGFIELD, MO 65804	IM
HILLS, JOE E	1550 E SUNSHINE ST SPRINGFIELD, MO 65804	CD
HINDS, PAUL A	TAYLOR HEALTH CLINIC SPRINGFIELD, MO 65802	OBG
HOLLAND, ROBT D	1211 S GLENSTONE SPRINGFIELD, MO 65804	PD
HOLLIS, RICHARD W	609 CHERRY 229 PROFESSIONAL BLD SPRINGFIELD, MO 65806	AN
HOLMES, DANL E	600 S GLENSTONE SPRINGFIELD, MO 65806	IM

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1443 N ROBBERSON
SPRINGFIELD, MO 65802
HUBBARD, SALLY L FP
901 NATIONAL
SMSU STUDENT CLINIC
SPRINGFIELD, MO 65802
HUEWE, DOUGLAS A D
321 PROF BLDG 609 CHERR
SPRINGFIELD, MO 65806
HUFFT, ROBERT E ORS
1900 S NATIONAL
#1950
SPRINGFIELD, MO 65804
HULSTRA, JOHANNES F P
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IVY, HENRY B OPH
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118 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
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229 PROFESSIONAL BLDG.
SPRINGFIELD, MO 65806
JOBE, CHAS L IM
1211 S GLENSTONE-S G C
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1900 S NATIONAL
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JOHNSON, GEO A AN
609 CHERRY
SUITE 229
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JOHNSON, GEO L CRS
609 CHERRY
#307
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JOHNSON, JEFFREY R U
211 PROFESSIONAL BLDG.
SPRINGFIELD, MO 65806
JOHNSON, JOS C OBG
1211 S GLENSTONE
SPRINGFIELD, MO 65804
JOHNSON, W B IM
1443 N ROBBERSON
SPRINGFIELD, MO 65802
JOHNSON, WARFORD B IM
220 PROFESSIONAL BLDG
SPRINGFIELD, MO 65804
JOHNSON, WM F U
211 PROF BLDG
SPRINGFIELD, MO 65806
JOHNSTON, JOS L OBG
2855 SOUTHERN HILLS BLV
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JONES, HAROLD L IM
1550 SUNSHINE
SPRINGFIELD, MO 65804
KELL, GARY A IM
1550 E SUNSHINE
SPRINGFIELD, MO 65804
KELLY, JAMES C PD
1900 S NATIONAL
SUITE 2500
SPRINGFIELD, MO 65804
KEY, JAMES S D
224 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
KHALIL, TAMER G IM
3259 C EAST SUNSHINE
SPRINGFIELD, MO 65804
KINDER, DOYLE O GP
1211 S GLENSTONE
SPRINGFIELD, MO 65804
KIPFER, ROBT E GF
1550 E SUNSHINE
SPRINGFIELD, MO 65804
KISSELL, RICHARD W IM
600 S GLENSTONE
SPRINGFIELD, MO 65804
KLINGNER, GEO M GP
1630 N JEFFERSON ST
SPRINGFIELD, MO 65803
KLINGNER, GEO M IM
1630 N JEFFERSON ST
SPRINGFIELD, MO 65803
KLINKERFUSS, GEO H N
PROFESSIONAL BLDG 406
609 E CHERRY
SPRINGFIELD, MO 65806
KNABB, HENRY F GP
1630 NORTH JEFFERSON
SPRINGFIELD, MO 65803
KNABB, KENNETH E GP
1630 N JEFFERSON ST
SPRINGFIELD, MO 65803
KNOWLTON, NORMAN P D IM
419 PROFESSIONAL BLDG
609 CHERRY
SPRINGFIELD, MO 65806
KOBBERMANN, KOBBY J OBG
1900 S NATIONAL
SPRINGFIELD, MO 65804
KOLZE, VERNON W GS
600 S GLENSTONE
SPRINGFIELD, MO 65802
KRAHN, HENRY C R
208 MEDICAL TOWER
SPRINGFIELD, MO 65802
LA FERRIERE, KEITH A OTO
1900 S NATIONAL
SPRINGFIELD, MO 65804
LE FEVRE, PHILIP J P
2030 S NATIONAL
SPRINGFIELD, MO 65804
LEIDINGER, KARL J GP
P O DRAWER Y
REPUBLIC, MO 65738
LEMMON, GEO B A
609 E CHERRY
103A PROF BLDG
SPRINGFIELD, MO 65806
LIN, CHI-HSI N
3259 K EAST SUNSHINE
SPRINGFIELD, MO 65804
LISTERMAN, JOHN C GP
1228 NORTHWOOD CIRCLE
BOLIVAR, MO 65613
LITTON, LYLE D DR
208 MEDICAL TOWER
SPRINGFIELD, MO 65802
LOCKHART, CHAS E GS
609 CHERRY ST
105 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
LOEB, RICHARD H IM
1211 S GLENSTONE
SPRINGFIELD, MO 65804
LORENC, ERNEST D
321 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
LOVETT, ROBERT L PTH
204 MEDICAL TOWER
SPRINGFIELD, MO 65802
LOWE, HORACE A GS
302 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
LUNDMAN, HUGH J GS
609 CHERRY
116 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
LURIE, HAROLD H IM
600 S GLENSTONE
SPRINGFIELD, MO 65802
LUZECKY, MICHAEL H N
SUITE 406 PROFESSIONAL
609 CHERRY ST
SPRINGFIELD, MO 65806
LYNCH, THOS W D
1900 S. NATIONAL #3100
SPRINGFIELD, MO 65804
MADDUX, WM P PM
2634 INGLEWOOD RD
SPRINGFIELD, MO 65804
MAHER, ROBT W GS
609 CHERRY
307 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
MAJOR, TROY E D
1630 N JEFFERSON
SPRINGFIELD, MO 65802
MANTELL, JACK M IM
1550 E SUNSHINE
SPRINGFIELD, MO 65804
MAPLE, FRANCIS M GE
1211 S GLENSTONE
SPRINGFIELD, MO 65804
MC ALHANY, HOWARD J NS
1643 EAST CATALPA
SPRINGFIELD, MO 65804
MC CREA, WM A GP
1211 S GLENSTONE
SPRINGFIELD, MO 65804
MC LAUGHLIN, RICHARD D OBG
117 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
MENCHETTI, DONALD E FP
1630 N JEFFERSON
SPRINGFIELD, MO 65803
MENDEZ, MARIA A P
2003 E SUNSHINE #H
SPRINGFIELD, MO 65804
MENIGEN, CARL N IM
1550 E SUNSHINE ST
SPRINGFIELD, MO 65804
MEYER, JOHN W PD
3014 G EAST SUNSHINE
SPRINGFIELD, MO 65804
MICHAEL, HARVEY R ORS
1211 S GLENSTONE
SPRINGFIELD, MO 65804
MICHAELS, ROBERT OPH
1900 S NATIONAL AVE
SPRINGFIELD, MO 65804
MIHALEVICH, JOHN A IM
1900 S. NATIONAL #3400
SPRINGFIELD, MO 65804
MILLER, DAVID D GS
1443 N ROBBERSON
SPRINGFIELD, MO 65802
MILNE, JAY L U
SUITE 2700
1900 S NATIONAL
SPRINGFIELD, MO 65804
MIZELL, MYRON W CD
1900 S NATIONAL
SUITE 3400
SPRINGFIELD, MO 65804
MOORE, DE ARMOND OM
418 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
MORTON, PAUL C IM
1508 E STANFORD
SPRINGFIELD, MO 65804
MOSELEY, FREDERICK T GS
PROF BLDG
SUITE 116
SPRINGFIELD, MO 65806
MUEGGE, FREDERICK D IM
1443 N ROBERSON
SPRINGFIELD, MO 65802
NEBLETT, LEWIS M OTO
RT 2, BOX 213B
ROGERSVILLE, MO 65742
NELSON, DAVID E DR
SUITE 208
MEDICAL TOWER
SPRINGFIELD, MO 65802
NEU, LEO T IM
3008 CARLISLE CIRCLE
SPRINGFIELD, MO 65804
OLSON, ELBERT R OPH
1900 S NATIONAL STE 140
SPRINGFIELD, MO 65804
OVEREND, DONALD S PD
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
PACHECO, JOSE M R
1432 N JEFFERSON
SPRINGFIELD, MO 65802
PADDOCK, GEORGE O OPH
1211 S GLENSTONE
SPRINGFIELD, MO 65804
PALCHEFF, CHRIS L PD
1722 SS S GLENSTONE ST
SPRINGFIELD, MO 65804
PARK, WM I IM
609 CHERRY #309
SPRINGFIELD, MO 65806
PARKISON, DONALD E FP
2125 S BRENTWOOD
SPRINGFIELD, MO 65804
PARSONS, CLYDE W III ORS
118 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
PENNINGER, WILLIAM H ORS
600 S GLENSTONE ST
SPRINGFIELD, MO 65802
PETERSON, STANLEY S IM
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
PFEIEFER, RALPH B JR GS
FERRELL-DUNCAN CLINIC
1550 E SUNSHINE
SPRINGFIELD, MO 65804
PIKER, KENNETH D FP
1525 N CAMPBELL AVE
SPRINGFIELD, MO 65803
PINCKLEY, JAMES N TS
1211 S GLENSTONE
SPRINGFIELD, MO 65804
PODRECCA, GUIDO I PTH
207 PROF BLDG
SPRINGFIELD, MO 65806
POWELL, EDWIN M U
115 PROF BLDG
SPRINGFIELD, MO 65806
PRATER, BILL G OPH
410 PROF BLDG
SPRINGFIELD, MO 65806
PREVITI, VINCENT GS
1503 S GLENSTONE
SPRINGFIELD, MO 65804
PRUETT, PAUL L OBG
304 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
QUINN, PAUL S PTH
1423 N JEFFERSON AVE
SPRINGFIELD, MO 65802
RABORAR, ARTESO C PTH
207 PROF BLDG
SPRINGFIELD, MO 65804
RAINWATER, ELMER H OPH
410 PROFESSIONAL BLDG
SPRINGFIELD, MO 65804
REYES, EFRAIM TR
1423 N JEFFERSON
SPRINGFIELD, MO 65802
REYES, LIRIO M PD
1331 OAK RUN
SPRINGFIELD, MO 65804

RICE, KATHLEEN G PD
1900 S NATIONAL
SUITE 2900
SPRINGFIELD, MO 65804
RIESENBERG, DONALD E IM
1900 S NATIONAL
SPRINGFIELD, MO 65804
RISING, DEAN R PD
1211 S GLENSTONE
SPRINGFIELD, MO 65804
ROBINSON, GARY L OBG
404 E BATTLEFIELD RD
SPRINGFIELD, MO 65801
ROSEN, WILLIAM K FP
725 N 10TH ST
OZARK, MO 65721
RUFF, PAUL G TS
1211 S GLENSTONE
SPRINGFIELD, MO 65804
RUSSELL, EARL D GP
1500 S GLENSTONE ST
SPRINGFIELD, MO 65804
RYAN, ROBERT A GP
2523 EAST BROADMOOR
SPRINGFIELD, MO 65804
SAMMON, THOS J PD
3014J E SUNSHINE
SPRINGFIELD, MO 65804
SAUER, PAUL E TS
504 MEDICAL TOWER
SPRINGFIELD, MO 65802
SCANLON, ROBT C GP
2145 E EDGEWOOD
SPRINGFIELD, MO 65804
SCHAEFFER, EDWARD M OPH
2900 S FREMONT
SPRINGFIELD, MO 65804
SCHREIBER, NORMAN J GP
504 LONGMEADOW CR
ST CHARLES, IL 60174
SCHROFF, CARLE H FP
1630 N JEFFERSON ST
SPRINGFIELD, MO 65803
SCHWARTZ, EUGENE J A
609 CHERRY ST
317 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
SCHWARTZ, HOWARD R IM
1550 E SUNSHINE
SPRINGFIELD, MO 65804
SCOTT, ROBERT W IM
609 CHERRY
SPRINGFIELD, MO 65806
SHACKTER, BRUCE I ORS
1550 E SUNSHINE ST
SPRINGFIELD, MO 65804
SHAEFFER, JAMES T ORS
118 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
SHANE, RAMON A TS
1900 S NATIONAL
SPRINGFIELD, MO 65804
*SHANK, NEIL A IM
440 S MARKET
SPRINGFIELD, MO 65806
SHELTON, ROY W OPH
1211 S GLENSTONE
SPRINGFIELD, MO 65804
SHIELDS, LAWRENCE S FP
SMSU TAYLOR HEALTH CTR
SPRINGFIELD, MO 65802
SICELUFF, JOS G U
SUITE 2700
1900 S NATIONAL
SPRINGFIELD, MO 65804
SILSBY, DON J GS
401 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
SILSBY, HARRY D P
1369 SOUTH FAIRWAY AVE
SPRINGFIELD, MO 65804
SIMPSON, ALBERT P GP
SE MED BLDG 1636 S GLEN
SPRINGFIELD, MO 65804
SIMPSON, EMERSON L GP
1630 N JEFFERSON ST
SPRINGFIELD, MO 65803
SNEAD, WILLIAM H ORS
307 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
SNOW, EMASUE P
2030 SOUTH NATIONAL
SPRINGFIELD, MO 65804
SPALDING, DAVID L OPH
1900 S NATIONAL RD-STE
SPRINGFIELD, MO 65804
SPONENBERG, DON D PD
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
STAMATIS, JOHN J TS
1900 S NATIONAL
SUITE 2600
SPRINGFIELD, MO 65804
STEWART, R W GP
609 E CHERRY ST
219 PROFESSIONAL BLD
SPRINGFIELD, MO 65806

STEWART, ROBT B OPH
2360 EAST GRAND
SPRINGFIELD, MO 65804
STINE, G WAYNE FP
1525 NO CAMPBELL
SPRINGFIELD, MO 65803
STUBBLEFIELD, WAYNE GP
2740 S GLENSTONE
SPRINGFIELD, MO 65804
STUFFLEBAM, ROBT E IM
1900 S NATIONAL
SUITE 3400
SPRINGFIELD, MO 65804
STURTEVANT, HARWOOD N R
609 CHERRY
403 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
SULLIVAN, DAN T R
609 CHERRY ST
403 PROFESSIONAL BLD
SPRINGFIELD, MO 65806
SUNDSTROM, FRANK D ORS
RT 1, BOX 127
NIXA, MO 65714
SUVA, MORFEO M IM
2030 S NATIONAL
SPRINGFIELD, MO 65804
SWEENEY, THOS P DR
403 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
SWEET, ROBERT A IM
1211 S GLENSTONE
SPRINGFIELD, MO 65804
TARRASCH, ERNEST L OPH
1636 S GLENSTONE AVE
SPRINGFIELD, MO 65804
TAYLOR, WM E GP
1701 RANCH DRIVE
SPRINGFIELD, MO 65802
TENDAI, MARK M OBG
505 MEDICAL TOWER
SPRINGFIELD, MO 65802
TERRY, JAMES F U
115 PROF BLDG
SPRINGFIELD, MO 65806
THOMASSON, DAVID D PD
600 S GLENSTONE
SPRINGFIELD, MO 65802
TILLMAN, WALTER W AN
229 PROF BLDG
SPRINGFIELD, MO 65806
TUMBRIDGE, THOS L PTH
1235 E CHEROKEE
ST JOHN'S HOSPITAL
SPRINGFIELD, MO 65804
TROTTER, WM Y IM
1243 E CATALPA
SPRINGFIELD, MO 65804
TROXIL, ELIZABETH B PM
P O BOX 4807
SPRINGFIELD, MO 65808
TSANG, JOHN L NS
3259 G EAST SUNSHINE
SPRINGFIELD, MO 65804
TURNER, GLENN O IM
609 CHERRY
SPRINGFIELD, MO 65806
TURNER, WM F FP
S M S U TAYLOR HEALTH CTR
SPRINGFIELD, MO 65802
VIDOLOFF, JOHN C PM
LESTER COX MEDICAL CENTER
1423 N JEFFERSON
SPRINGFIELD, MO 65802
WACHTER, RONALD M PTH
DEPT PATHOLOGY
COX MEDICAL CENTER
SPRINGFIELD, MO 65804
WADDELL, KENNETH E OBG
1211 S GLENSTONE
SPRINGFIELD, MO 65804
WAKEMAN, J N GS
1402 E MEADOWMERE
SPRINGFIELD, MO 65802
WAKEMAN, NEWT ORS
1900 S NATIONAL ST
SPRINGFIELD, MO 65804
WALKER, GARY OBG
117 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
WALKER, MELVIN O JR IM
NATIONAL AVE MED BLDG
1900 S NATIONAL AVE
SPRINGFIELD, MO 65804
WALKER, WM M OBG
609 CHERRY ST
17 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
WALL, NORMAN R PS
1443 N ROBBERSON
SPRINGFIELD, MO 65802
WANTUCK, DONALD K IM
1900 S NATIONAL
SUITE 3400
SPRINGFIELD, MO 65804
WARKES, HERBERT L U
609 CHERRY ST
230 PROFESSIONAL BLD
SPRINGFIELD, MO 65806

WATERFIELD, JIM R IM
1211 S GLENSTONE
SPRINGFIELD, MO 65801
WHITE, R N OBG
301 MEDICAL TOWER
SPRINGFIELD, MO 65802
WHITLOCK, C C NS
405 MEDICAL TOWER
SPRINGFIELD, MO 65802
WILLIAMS, JOHN W IV OBG
404 E BATTLEFIELD
SPRINGFIEKD, MO 65807
WILSON, ROY E P
1900 S NATIONAL
STE 3300
SPRINGFIELD, MO 65804
WINSKY, ARLEN D PS
508 MEDICAL TOWER
SPRINGFIELD, MO 65802
WITTMER, MARC R GS
600 S GLENSTONE
SPRINGFIELD, MO 65802
WITTMER, SAML C GS
600 S GLENSTONE ST
SPRINGFIELD, MO 65802
WOLF, MARION L ORS
1211 S GLENSTONE
SPRINGFIELD, MO 65804
WOLFE, JAMES B OTO
SUITE 410
PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
WOLFE, JOHN E PUD
1550 E SUNSHINE
SPRINGFIELD, MO 65804
WONG, GEO N
2030 S NATIONAL
SPRINGFIELD, MO 65804
WOOLDRIDGE, WILFRED E D
321 PROF BLDG
SPRINGFIELD, MO 65806
WOOTEN, MICHAEL B GE
1211 S GLENSTONE
SPRINGFIELD, MO 65804
WYRSCH, LEO M OBG
304 PROFESSIONAL BLDG
SPRINGFIELD, MO 65806
YANCEY, DANIEL L ORS
1211 S GLENSTONE ST
SPRINGFIELD, MO 65804
ZAHN, ROBT L PD
1900 S NATIONAL STE 190
SPRINGFIELD, MO 65804

086—HENRY

HOLLINGSWORTH, RAY S GP
MEDICAL BLDG HOSPITAL D
CLINTON, MO 64735
HUGHES, SHELBY B GP
210 E WILSON
CLINTON, MO 64735
JONES, EDNA M TS
RT #2
DEEPWATER, MO 64740
KING, RICHARD H GS
HOSPITAL DR
C/O MEDICAL CLINIC
CLINTON, MO 64735
SCOTT, KENNETH F FP
MED BLDG-HOSPITAL DR
CLINTON, MO 64735
SMITH, JAMES O GP
MEDICAL BLDG HOSPITAL D
CLINTON, MO 64735
SMITH, WM J GP
103 W COLT ST
WINDSOR, MO 65360
WELTSCHEFF, CHRISTO A GP
120 S MAIN
WINDSOR, MO 65360
WETZEL, GUS S GS
ROUTE 4
CLINTON, MO 64735

094—HOWARD

DEAN, FRANCIS D GP
300 N CHURCH ST
FAYETTE, MO 65248
GENGELBACH, RICHARD W FP
FAYETTE MED CLINIC
ELM & CHURCH STS
FAYETTE, MO 65248
HOERL, MARK S FP
FAYETTE MED CLINIC
FAYETTE, MO 65248
HOFMEISTER, ROGER W FP
ELM & CHURCH STS
FAYETTE, MO 65248
LEECH, MAURICE P GP
300 N CHURCH
FAYETTE, MO 65248
MARSHALL, WILLIAM G FP
GLASGOW MED CTR
GLASGOW, MO 65254
SHAW, WM J GP
300 N CHURCH ST
FAYETTE, MO 65248

Doctor of Osteopathy

098—JACKSON

AARON, GEO U
TRUMAN FOREST MED BUILDING
1515 W TRUMAN RD
INDEPENDENCE, MO 64050
ABAQUETA, GAMALIEL P AN
1220 W 64TH TERR
KANSAS CITY, MO 64113
ABDOU, NANCY L IM
316 RESEARCH MED. OFF. BLDG
6400 PROSPECT
KANSAS CITY, MO 64132
ABELLA, BIENVENIDO Z GS
6400 PROSPECT
SUITE 200
KANSAS CITY, MO 64132
ABEND, MELVIN N PS
6724 TROOST
KANSAS CITY, MO 64131
ABERCROMBIE, KEITH J U
1010 CARONDELET DR
KANSAS CITY, MO 64114
ABRAMS, BERNARD M N
P O BOX 7252
KANSAS CITY, MO 64113
ADAMS, CHARLES R IM
4512 RAINBOW
KANSAS CITY, KS 66103
ADAMS, JOYCE A PD
WAYNE MINER HEALTH CTR
825 EUCLID
KANSAS CITY, MO 64124
ADELMAN, ARTHUR GS
6724 TROOST SUITE 910
KANSAS CITY, MO 64131
ADLER, FEDERICO ORS
6724 TROOST AVE
KANSAS CITY, MO 64131
AGEE, LOREN G GP
RT 1
RANTOUL, KS 66079
AHUJA, SURAJ P CD
428 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131
AKIN, C D CD
1515 W TRUMAN RD
INDEPENDENCE, MO 64050
AKS, DANL OBG
6724 TROOST
KANSAS CITY, MO 64131
ALBERG, MARVIN R OM
3525 N W 60TH TERRACE
KANSAS CITY, MO 64151
ALDERMAN, DONALD F AN
3221 W 83RD ST
SHAWNEE MISSION, KS 66206
ALDERMAN, THOS F GS
1010 CARONDELET SUITE 1
KANSAS CITY, MO 64114
ALDRIDGE, JOHN OBG
SUITE 201(S3)
6025 PROSPECT
KANSAS CITY, MO 64130
ALFIE, SALOMON P
4400 BROADWAY
SUITE 202
KANSAS CITY, MO 64111
ALI, MOHAMMED E AN
4301 CAMBRIDGE
INDEPENDENCE, MO 64055
ALLEBACH, HOBART K PTH
6400 PROSPECT AVE
KANSAS CITY, MO 64132
ALLEN, ARTHUR A II N
210 FOXHILL MED BLDG
4601 W 109TH ST
SHAWNEE MISSION, KS 66211
ALLEN, ROBT E GS
4320 WORNALL RD
KANSAS CITY, MO 64111
ALMQUIST, L A FP
BAPTIST MEM HOSP
6601 ROCKHILL RD
KANSAS CITY, MO 64131
ALSOP, WEBB S AN
6400 PROSPECT
KANSAS CITY, MO 64132
ALTOMARE, EDWARD F AN
1030 W 65TH ST
KANSAS CITY, MO 64113
AMES, MARY B OS
7261 EBY DR
SHAWNEE MISSION, KS 66204
AMINI, JAFAR R
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY, MO 64108
AMMATELLI, FRANCIS J IM
412 ST JOSEPH MEDICAL B
1010 CARONDELET DR
KANSAS CITY, MO 64114

AMOURY, RAYMOND A GS
CHILDRENS MERCY HOSPITA
24TH & GILLHAM RD
KANSAS CITY, MO 64108

ANDERSON, RAYMOND B PD
CHILDREN'S MERCY HOSPITAL
24TH & GILLHAM RD
KANSAS CITY, MO 64108
ANDERSON, SUE K NEP
44TH & WORNALL RD
KANSAS CITY, MO 64111
ANDERSON, WILLIAM A PD
CHILDRENS MERCY HOSP.
24TH AT GILLHAM
KANSAS CITY, MO 64108
ANDRUS, BAILEY C PD
4400 BROADWAY
KANSAS CITY, MO 64111
ANTHONY, JAMES P DR
3807 WEST 171ST ST
STILWELL, KS 66085
ARBAB, ALI A GS
208 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131
ARMS, ARNOLD V IM
450 N PRYOR RD
LEE'S SUMMIT, MO 64063
ARMS, RICHARD A PUD
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
ARNOLD, JOHN D PA
5101 E 24TH ST
KANSAS CITY, MO 64127
ARNOLD, LOWRY K PTH
101 MEMORIAL DRIVE
ST MARY'S HOSP
KANSAS CITY, MO 64108
ARRIBAS, AURORA I GP
1000 S 42ND
BLUE SPRINGS, MO 64015
ARRIBAS, ROMEO E GS
1212 LUTTRELL
BLUE SPRINGS, MO 64015
ARSENOVIC, ALEXANDER FP
KANSAS CITY MEDICAL CEN
917 MC GEE ST
KANSAS CITY, MO 64106
ASHBY, JENNIFER D D
2929 BALTIMORE
SUITE 310
KANSAS CITY, MO 64108
ASHCRAFT, KEITH W GS
509 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY, MO 64111
ASHER, A G CD
510 SHAMOCK APT 113
JOHN KNOX
LEE'S SUMMIT, MO 64063
ASHLEY, JOHN T PH
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY, MO 64108
ASHLEY, LILLARD G A CD
SUITE 505 1734 E 63RD S
KANSAS CITY, MO 64110
ATWELL, FLOYD C OBG
4320 WORNALL RD
KANSAS CITY, MO 64111
AUSTIN, GEORGE M U
1515 W TRUMAN RD
SUITE 404
INDEPENDENCE, MO 64050
AVERILL, KEITH H CD
1010 CARONDELET DRIVE
SUITE 110
KANSAS CITY, MO 64114
BAER, ALVIN J OPH
751 E 63D ST
KANSAS CITY, MO 64110
BAILEY, HUGH R D
4320 WORNALL RD
KANSAS CITY, MO 64111
BAKER, PHILIP J GP
9306 E NEW 40TH HWY
INDEPENDENCE, MO 64050
BALK, ROBERT IM
4457 CAMBRIDGE
KANSAS CITY, KS 66103
BALLARD, V B IM
4320 WORNALL RD
KANSAS CITY, MO 64111
BANKUTI, FERENC R
RESEARCH MED OFF BLDG S
6400 PROSPECT
KANSAS CITY, MO 64132
BARE, CHESTER I PD
9406 E 63RD
KANSAS CITY, MO 64133
BARELLI, PAT A OTO
2929 BALTIMORE STE 105
KANSAS CITY, MO 64108

BARLOON, JAMES H OBG
240 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131

BARNARD, JOHN L ORS
4320 WORNALL RD
KANSAS CITY, MO 64111
BARNETT, DANIEL K IM
12921 GRANDVIEW RD
GRANDVIEW, MO 64030

BARNETT, GORDON P GP
6568 HIGH DR
SHAWNEE MISSION, KS 66208
BARR, GLENN A GS
6724 TROOST SUITE 910
KANSAS CITY, MO 64131
BARRY, WM B OTO
4320 WORNALL RD
KANSAS CITY, MO 64111
BARTER, BRUCE PD
9150 EAST 41ST TERR
KANSAS CITY, MO 64133
BARTON, JEAN C PD
3429 COLEMAN RD
KANSAS CITY, MO 64111
BASANTZ, FERNANDO V GP
11201 COLORADO
KANSAS CITY, MO 64134
BASKA, RICHARD E N
CHILDRENS MERCY HOSP
KANSAS CITY, MO 64108
BASS, BARRY J GS
11925 E. 57TH ST
KANSAS CITY, MO 64133
BASS, WALTER R OPH
8800 E 63RD ST
RAYTOWN, MO 64133
BAUER, LAFE W AN
4818 W 80TH
PRAIRIE VILLAGE, KS 66208
BAUM, FRANK E OBG
6724 TROOST AVE
KANSAS CITY, MO 64131
BAVISHI, SAROJ A OBG
373 WEST 101ST TERR
KANSAS CITY, MO 64114
BAY, MERRILL R OM
301 S WOODS CHAPEL RD
BLUE SPRINGS, MO 64015
BAYER, WILLIAM L IM
4040 MAIN
KANSAS CITY, MO 64111
BEALL, MC PHERSON S ORS
1010 CARONDELET DR. #426
KANSAS CITY, MO 64114
BEARD, WM J IM
10604 E 98TH TERR #3C
KANSAS CITY, MO 64134
BEATTY, EUGENE C PTH
24TH GILLHAM RD
KANSAS CITY, MO 64108
BEATTY, NINA D AN
TRUMAN MEDICAL CTR
2301 HOLMES
KANSAS CITY, MO 64108
BEAUCHAMP, GARY D IM
722 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
BECK, CALVIN E U
4320 WORNALL RD
KANSAS CITY, MO 64111
BECKER, RICHARD R GP
5622 HOLMES ST
KANSAS CITY, MO 64110
BECKER, ROLFE A OPH
6724 TROOST AVE SUITE 8
KANSAS CITY, MO 64131
BEEKS, JOHN W OM
1522 PROFFESSIONAL BLDG
1103 GRAND
KANSAS CITY, MO 64106
BEHRENDS, STEVEN H GS
1010 CARONDELET
SUITE 120
KANSAS CITY, MO 64114

BELL, HUBERT H CD
4320 WORNALL RD
KANSAS CITY, MO 64111

BELL, WM F GP
615 WEST 3RD STREET
LEE'S SUMMIT, MO 64063

BELLER, THOMAS A IM
6420 PROSPECT
SUITE T303
KANSAS CITY, MO 64132

BENNETT, JAMES D IM
6700 TROOST
KANSAS CITY, MO 64131
BENOIT, HECTOR W TS
4620 J C NICHOLS PKWY
KANSAS CITY, MO 64112
BENSON, GEORGE N DR
613 PIERPOINT DR
NASHVILLE, TN 37207
BENSON, WILLIAM F ORS
4320 WORNALL RD
KANSAS CITY, MO 64111
BERENSON, SHELDON E R
832 WEST 63RD STREET
KANSAS CITY, MO 64113
BERLIN, ROGER P
751 E 63RD RD
KANSAS CITY, MO 64110
BERRY, MAXWELL G IM
4320 WORNALL RD
KANSAS CITY, MO 64111

BERTUSO, JOHN R CONSORTIUM FOR HEALTH EDUC. 2920 MC GEE TRAFFICWAY KANSAS CITY, MO 64108	IM
BETTINGER, IRENE E 4320 WORNALL RD. SUITE 432 KANSAS CITY, MO 64111	N
BICKLEY, JAMES E 328 ST JOSEPH MED BLDG 1010 CARONDELET DR KANSAS CITY, MO 64114	OBG
BIDNICK, TERRANCE A WESTERN ELECT. MED DEPT 777 N BLUE PARKWAY LEE'S SUMMIT, MO 64063	OM
BIDWELL, JO J 4320 WORNALL KANSAS CITY, MO 64111	P
BIDWELL, ROBT E 4320 WORNALL RD STE 704 KANSAS CITY, MO 64111	P
BIERY, RICHARD M K C MO HEALTH DEPT 414 E 12TH ST KANSAS CITY, MO 64106	GPM
BIGGS, ALFRED D 6400 PROSPECT AVE SUITE 333 KANSAS CITY, MO 64132	IM
BIGGS, HARRY L 308 W 3RD ST LEE'S SUMMIT, MO 64063	GP
BILLS, MARVIN L 3309 W 68TH ST SHAWNEE MISSION, KS 66208	N
BINDA, ROBERT E 142 RESEARCH MEDICAL OF 6400 PROSPECT AVE KANSAS CITY, MO 64132	AN
BLACK, DON A 6400 PROSPECT ST KANSAS CITY, MO 64132	IM
BLACK, EUGENE C 3201 W 67TH ST SHAWNEE MISSION, KS 66208	OM
BLACK, ROSS R 1740 W 92ND STREET KANSAS CITY, MO 64114	FP
BLACK, THOMAS C 1010 CARONDELET DR SUITE 416 KANSAS CITY, MO 64114	OPH
BLIM, RICHARD D 4400 BROADWAY KANSAS CITY, MO 64111	PD
*BLUM, MICHAEL A 401 S CLAIRBORNE SUITE 200 OLATHE, KS 66062	PD
BODENHAUSEN, GARY E RR1 - BOX 419 GRAIN VALLEY, MO 64029	FP
BOGART, DOUGLAS B 415 PENN PARK 2929 BALTIMORE KANSAS CITY, MO 64108	IM
BORDY, MARVIN D 601 E 63RD ST KANSAS CITY, MO 64110	PD
BORENSTINE, JOS 601 E 63RD ST SUITE 311 KANSAS CITY, MO 64110	PD
BORSUK, GREGORY M 1008 ALICE ST BLUE SPRINGS, MO 64015	D
BORTNICK, EUGENE 6724 TROOST AVE STE 200 KANSAS CITY, MO 64131	PS
BOTWIN, ARNOLD E 404 HIGHLANDS PROF TWR 6724 TROOST KANSAS CITY, MO 64131	GS
BOWLER, LARRY D 1218 N E 9TH ST BLUE SPRINGS, MO 64015	IM
BOWLER, ULYSSES S 6235 E 127TH ST GRANDVIEW, MO 64030	IM
BOWSER, JOHN F 128 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	R
BOYD, GEO K 4320 WORNALL RD KANSAS CITY, MO 64111	IM
BOYER, PHILIP A 5 W O'BRIEN LEE SUMMIT, MO 64063	IM
BOYLAN, PETER C 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS
BRADY, HOWARD H 1515 W TRUMAN RD-STE 30 INDEPENDENCE, MO 64050	OBG
BRADFORD, JOHN E 4320 WORNALL ST KANSAS CITY, MO 64111	OPH
BRAMS, JACK B 601 E 63RD ST STE 508 KANSAS CITY, MO 64110	IM
BRAND, STANLEY N STATLAND CLINIC 6724 TROOST-SUITE 710 KANSAS CITY, MO 64131	GE
BRAUN, WILLIAM J CHILDREN'S MERCY HOSPITAL 24TH GILLHAM RD KANSAS CITY, MO 64108	PD
BRAVERMAN, ABE E 8300 TROOST KANSAS CITY, MO 64131	IM
BREWER, JOSEPH H SUITE 208 4320 WORNALL KANSAS CITY, MO 64111	IM
BRICK, JEFFREY M 504 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	OPH
BROCK, ARTHUR L 1516 W TRUMAN RD INDEPENDENCE, MO 64050	GE
BRODKEY, MARK J 6400 PROSPECT AVE KANSAS CITY, MO 64132	U
BROOK, CHARLES J 6420 PROSPECT SUITE T-303 KANSAS CITY, MO 64132	PUD
BROTHERS, MARY E 2727 MAIN ST KANSAS CITY, MO 64108	GS
BROWER, CLYDE L 118 S WILLIS ST INDEPENDENCE, MO 64050	GP
BROWN, ADRIAN J 12 EAST 63RD ST KANSAS CITY, MO 64113	GP
BROWN, ELWYN S 24TH AND GILLHAM RD KANSAS CITY, MO 64108	AN
BROWN, FRANCES S 3504 DELAWARE INDEPENDENCE, MO 64055	IM
BROWN, IRWIN S RR #1 LA CYGNE, KS 66040	U
BROWN, MENZIE H 2929 BALTIMORE AVE SUITE 340 KANSAS CITY, MO 64108	R
BROWN, ROBT S 2929 BALTIMORE STE 200 KANSAS CITY, MO 64108	OBG
BROWN, SCOTT S 12908 W 66TH TERR SHAWNEE MISSION, KS 66216	IM
BROWNE, JON E 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS
BRUMM, LAWRENCE W 6400 PROSPECT ST KANSAS CITY, MO 64132	IM
BRUNER, ROBT E 14909 LITTLE BLUE RD KANSAS CITY, MO 64136	CHN
BRYAN, WM H 3939 PROSPECT KANSAS CITY, MO 64130	GS
BRYANT, T J 615 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	IM
BUCHANAN, BARBARA N 4400 BROADWAY KANSAS CITY, MO 64111	CHP
BUCHWACH, KENNETH A 4240 BLUE RIDGE BLVD SUITE 434 KANSAS CITY, MO 64133	OTO
BUCKNER, ROBT C 328 ST JOSEPH MED BLDG 1010 CARONDELET DR KANSAS CITY, MO 64114	OBG
BUDKE, HAROLD A 306 E 12TH ST KANSAS CITY, MO 64106	GP
BUHLER, VICTOR B APT 1004 2510 GRAND AVE KANSAS CITY, MO 64108	PTH
BUIE, BRUCE R 11201 COLORADO KANSAS CITY, MO 64137	GP
BUNTING, WILLISTON F 1231 W 62ND KANSAS CITY, MO 64113	OTO
BURRY, VIRGIL F CHILDRENS MERCY HOSP KANSAS CITY, MO 64108	PD
BUSTOS, JONAS G 1005 NORTH B HERINGTON, KS 67449	GS
BUTCHER, ROBT W 7924 PASEO ST KANSAS CITY, MO 64131	IM
BUTT, ATTA U SUITE 11 751 E. 63RD ST. KANSAS CITY, MO 64110	P
BUTTERWORTH, NELSON S 725 W 49TH TERRACE KANSAS CITY, MO 64112	IM
BYARS, STEVEN R 6724 TROOST SUITE 202 KANSAS CITY, MO 64131	OPH
CABANAS, JUSTO J 2105 INDEPENDENCE AVE ROOM 873 KANSAS CITY, MO 64124	P
CAFFREY, RAYMOND J 1314 W RED BRIDGE RD KANSAS CITY, MO 64114	PTH
CAIN, A S 6700 TROOST SUITE 348 KANSAS CITY, MO 64131	CD
CALDWELL, JOHN K 6700 TROOST KANSAS CITY, MO 64131	IM
CALOVICH, EMERY R 4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	PUD
CAMACHO, HOMERO 12009 PERRY OVERLAND PARK, KS 66213	OBG
CAMPBELL, FREDERICK B 315 NICHOLS RD KANSAS CITY, MO 64112	CRS
CAMPBELL, JOHN G 6420 PROSPECT SUITE 311 KANSAS CITY, MO 64132	CRS
CANENT, RAMON V 24TH & GILLHAM RD KANSAS CITY, MO 64108	PDC
CAPPS, EUGENE C 7921 EL MONTE SHAWNEE MISSION, KS 66208	AN
CARLSON, HJALMAR E 525 PENN PARK MED CTR 2929 BALTIMORE KANSAS CITY, MO 64108	U
CARLSON, JOHN S 4400 BROADWAY STE 206 KANSAS CITY, MO 64111	PD
CARTER, JAMES E 1734 E 63RD ST STE 410 KANSAS CITY, MO 64110	FP
CARUSO, ALFRED A 1020 E 75TH WAY KANSAS CITY, MO 64131	OBG
CASE, WM F 416 CARONDELET MEDICAL 1010 CARONDELET DR KANSAS CITY, MO 64114	OPH
CASHMAN, JOHN W 6400 PROSPECT 316 RESEARCH MED BLDG KANSAS CITY, MO 64132	PH
CATTANEO, ERNEST A MISSION PROF BLDG #1 6100 MARTWAY SHAWNEE MISSION, KS 66202	IM
CENTNER, PAUL J 2727 MAIN ST KANSAS CITY, MO 64108	GS
CHANDLER, ROBT A 4177 BROADWAY KANSAS CITY, MO 64111	PS
CHANDRA, MAHESH 1515 W TRUMAN RD SUITE 301 INDEPENDENCE, MO 64050	IM
CHANG, DAVID Y 101 MEMORIAL DR KANSAS CITY, MO 64108	AN
CHAPMAN, DAVID W 1515 W TRUMAN RD STE 30 INDEPENDENCE, MO 64050	FP
CHAUDHARY, MOHAMMAD A 440 SUBURBAN DOCTORS BLDG 10550 QUIVIRA SHAWNEE MISSION, KS 66215	GE
CHAUDHURI, SUDHA T 1001 E 47TH ST KANSAS CITY, MO 64110	OBG
CHAUDHURI, TAPAN K 9406 E 63RD ST KANSAS CITY, MO 64133	IM
CHEN, STUART 2411 HOLMES KANSAS CITY, MO 64108	GE
CHERNOFF, SELBERT G 1001 NO INDEPENDENCE AVE LEE'S SUMMIT, MO 64063	IM
CHILDS, DONNALEA S 4400 BROADWAY KANSAS CITY, MO 64111	CHP
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ELIAS, DAVID J	9306 E NEW 40 HIGHWAY INDEPENDENCE, MO 64055	GP
ELKINS, ROBERT L	703 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	U
ELLFELDT, HOWARD J	6400 PROSPECT AVE KANSAS CITY, MO 64132	ORS
ELLIOTT, RAYMOND G	320 CARONDELET MEDICAL BLDG 1010 CARONDELET DR. KANSAS CITY, MO 64114	FP
ELLIOTT, WADE E	710 W 12TH ST KANSAS CITY, MO 64105	GP
ELLIS, DAVID L	6724 TROOST KANSAS CITY, MO 64131	GS
ELSER, OTTO H	COM OF HEALTH MINISTRIES P O BOX 1059 INDEPENDENCE, MO 64050	OPH
ENGEL, LAWRENCE P	6505 W 103RD SHAWNEE MISSION, KS 66212	GS
ENGELMANN, CALVIN E	2929 BALTIMORE AVE KANSAS CITY, MO 64108	GS
ERICSSON, SAML E	6724 TROOST H205 KANSAS CITY, MO 64131	P
ERVIN, JOHN E	11947 AVILA DR KANSAS CITY, MO 64145	IM
ESHELMAN, ALBERT D	9103 EAST 40 HIGHWAY INDEPENDENCE, MO 64055	FP
EUBANK, DAVID F	9406 E 63RD ST RAYTOWN, MO 64133	PD
EUBANK, DILLARD M	6020 ELM AVE KANSAS CITY, MO 64133	GP
EUBANK, WM Y	6400 PROSPECT AVE SUITE KANSAS CITY, MO 64132	IM
EUPRASERT, PRICHA	6331 DEARBORN DR SHAWNEE MISSION, KS 66202	GS
EVANS, CAROL A	9017 W 78TH CIRCLE SHAWNEE MISSION, KS 66204	IM
EVANS, JOS C	1515 W TRUMAN RD INDEPENDENCE, MO 64050	GS
EVANS, LAWRENCE L	4320 WORNALL KANSAS CITY, MO 64111	GS
EVERETT, JAMES E	4 WEST DARTMOUTH RD KANSAS CITY, MO 64113	OBG
EYNON, JAMES R	401 HIGHLANDS PROF TOWER 6724 TROOST KANSAS CITY, MO 64131	CD
FAIRCHILD, ROBT C	8425 RHEINHARDT LANE SHAWNEE MISSION, KS 66206	PD
FARAON, JOSE B	2525 EUCLID AVE KANSAS CITY, MO 64127	PTH
FARNHAM, MILO M	1515 W TRUMAN RD INDEPENDENCE, MO 64050	IM
ARRIS, RONNIE S	DEPT SURG TRUMAN MED CTR 2301 HOLMES KANSAS CITY, MO 64108	GS
AVORS, ADOLPHUS C JR	2411 HOLMES ST KANSAS CITY, MO 64108	ON
AYNE, FRED A	SUITE 200 6025 PROSPECT KANSAS CITY, MO 64130	P
EDOTIN, MICHAEL S	6724 TROOST SUITE 508 KANSAS CITY, MO 64131	GE
EE, CHESTER F	2929 BALTIMORE AVE KANSAS CITY, MO 64108	ORS
EIST, GEO V	1103 W 86TH TERR KANSAS CITY, MO 64114	GP
EIST, WM E	10618 W 98TH TERRACE OVERLAND PARK, KS 66214	IM
FERBER, ALAN J	9150 E 41ST TERRACE KANSAS CITY, MO 64133	OBG
FERGUSON, DONALD S	2012 E 24TH ST KANSAS CITY, MO 64127	GP
FERNS, FRANCIS E	520 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	OBG
FERRIS, CARYL R	6400 PROSPECT KANSAS CITY, MO 64132	IM
FIBUCH, EUGENE E	ST LUKES HOSP 44TH AND WORNAL RD KANSAS CITY, MO 64111	AN
FIORE, JOSEPH P	508 E 44TH ST KANSAS CITY, MO 64110	IM
FISHER, JAMES K	710 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	DR
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FITZGERALD, ROBERT H	5219 WEST 96TH STREET OVERLAND PARK, KS 66207	ORS
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FLEMING, ALLAN R	2900 BALTIMORE MED BLDG SUITE 530 KANSAS CITY, MO 64108	IM
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FORGUE, DONALD R	CHILDRENS MERCY HOSP 24TH & GILLHAM RD KANSAS CITY, MO 64108	PD
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FORSYTHE, LEES C	4320 WORNALL RD KANSAS CITY, MO 64111	IM
FORSYTHE, ROBT W	220 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	NS
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FOUTS, DALLAS B	1515 W TRUMAN RD SUITE 301 INDEPENDENCE, MO 64050	IM
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FRANKLIN, CURTIS U	4301 MAIN STE 41 KANSAS CITY, MO 64111	P
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304 HIGHLANDS PROF TOWE
6724 TROOST
KANSAS CITY, MO 64131
GRASHOFF, JOYCE A IM
CONSORTIUM FOR HEALTH EDUC
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64108
GREEN, J R GS
17221 E 23RD ST
INDEPENDENCE, MO 64057
GREEN, THOMAS F OBG
2116 SOUTH STERLING
INDEPENDENCE MO 64052
GREENBERG, MARTIN T IM
373 W 101ST TERR
KANSAS CITY, MO 64114
GRIFFIN, DONALD R AN
8728 CATALINA DR
PRAIRIE VILLAGE, KS 66208
GRIFFITH JOHN A GS
332 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY MO 64111
GRIMES, ELWYN M OBG
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY, MO 64108
GROWDON, JOHN A GS
4545 WORNALL ROAD
APT 212
KANSAS CITY, MO 64111
GRUNT, JEROME A PD
CHILDRENS MERCY HOSP DE
KANSAS CITY, MO 64108
GUASTELLO, JOS R OTO
512 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
GUASTELLO, MARIO I OTO
4320 WORNALL RD
KANSAS CITY MO 64111
GUERRA, GASTON G GS
330 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108
GUNDLE, SIGMUND P
601 EAST 63RD STREET
KANSAS CITY, MO 64110
GUNN, RICHARD W IM
225 OZARK NATL LIFE BLDG
906 GRAND
KANSAS CITY, MO 64106
GUPTA, B S P
WESTERN MO MENTAL HEALT
600 EAST 22ND ST
KANSAS CITY, MO 64108
GURA, GEORGE M JR CU
410 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
GUSTAFSON, JON E R
1509 TRUMAN RD
INDEPENDENCE, MO 64050
GUTER, EDWARD F PS
408 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY, MO 64111
GUTKNECHT RICHARD OBG
2116 SO STERLING
INDEPENDENCE, MO 64052

HAAS, HARRY D IM
624 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HABIB, HENRY N U
232 RESEARCH MED OFF BL
6400 PROSPECT
KANSAS CITY, MO 64132
HAGAR, DAVID L PD
9406 E 63RD ST
KANSAS CITY, MO 64133
HAHN, BRUCE H GS
615 W 3RD ST
LEE'S SUMMIT, MO 64063
HAHN, FREDERICK W OTO
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
HAIGHT, J MAX GP
4601 INDEPENDENCE AVE
KANSAS CITY, MO 64124
HAITH, EDWARD E GS
6724 TROOST
KANSAS CITY, MO 64131
HAITH, WALTER F OBG
2701 E 31ST ST
KANSAS CITY, MO 64128
HALL, JOHN C D
4400 BROADWAY STE 505
KANSAS CITY, MO 64111
HALL, RALPH R IM
3900 W 57TH ST
FAIRWAY, KS 66205
HALL, ROBT T PD
24TH GILLHAM ROAD
KANSAS CITY, MO 64108
HALPERIN, PHILLIP H GS
6724 TROOST
SUITE 910
KANSAS CITY, MO 64131
HAMAKER, WILLIAM R TS
510 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HAMBURGER, STEPHEN C IM
UMKC SCHOOL OF MEDICINE
2411 HOLMES
KANSAS CITY, MO 64108
HAMILL, ROBT W N
236 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HAMILTON, JAMES J ORS
2301 HOLMES
KANSAS CITY, MO 64108
HAMLIN, HOWARD H GS
4301 MAIN ST
KANSAS CITY, MO 64111
HANDSHY, STANLEY E FP
GOPPERT FAMILY CARE UNIT
6601 ROCKHILL RD
KANSAS CITY, MO 64131
HANNAH, HAMNER CDS
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY, MO 64110
HANNAS, RALSTON R EM
11812 AVILA DR
KANSAS CITY, MO 64114
HANSON, E J NS
4320 WORNALL RD STE 328
KANSAS CITY, MO 64111
HANSON, KARL H IM
4320 WORNELL STE 212
KANSAS CITY, MO 64111
HARBRECHT, JAMES J CD
730 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HARDACRE, RUTH A OS
P O BOX 27043
1121 E 47TH ST
KANSAS CITY, MO 64110
HARDY, HENRY M AN
6606 OVERHILL RD
SHAWNEE MISSION, KS 66208
HARDY, JOHN W IM
AMER TELEPHONE & TELEGRAPH
811 MAIN BOX 1418
KANSAS CITY, MO 64141
HARLESS, MORRIS S GS
RT 2 BOX 8B
GALENA, MO 65656
HARLOW, LLOYD M GS
2462 A BROOKLYN ST
KANSAS CITY, MO 64127
HARRIN, WM R U
300 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HARRIS, DAVID J PD
CHILDRENS MERCY HOSP
24TH AT GILLNAM RD
KANSAS CITY, MO 64108
HARRIS, LANNY W ORS
8708 BIRCH LANE
PRAIRIE VILLAGE KS 66207
HARRIS, WELDON L PD
17221 E 23RD ST
INDEPENDENCE, MO 64057

HART, L W CHP
4400 BROADWAY STE 202
KANSAS CITY, MO 64111
HARTMAN, GREGORY L IM
224 MEDICAL PLAZA
4320 WORNAL RD
KANSAS CITY, MO 64111
HARTWIG, FREDERICK H GS
6400 PROSPECT AVE
KANSAS CITY, MO 64132
HARTWIG, RAYMOND W R
6546 WENONGA RD
SHAWNEE MISSION, KS 66208
HARTZLER, GEOFFREY O IM
410 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
HAUSHEER, HERMAN J OBG
1515 W TRUMAN RD STE 30
INDEPENDENCE, MO 64050
HAYS, LARRY V GS
4320 WORNALL
KANSAS CITY, MO 64111
HAZEN, ROBT M OTO
6400 PROSPECT AVE
KANSAS CITY, MO 64132
HAZUKA, DAVID F DR
4036 WEST 104TH TERR
SHAWNEE MISSION, KS 66207
HEALY, BRIAN E ORS
426 CARONDELET MED BLDG
1010 CARONDELET DR
KANSAS CITY, MO 64114
HEILMAN, EDWARD J IM
6700 TROOST RM 604
KANSAS CITY, MO 64131
HELLERSTEIN, STANLEY PD
CHILDRENS MERCY HOSP
KANSAS CITY, MO 64108
HELLING, THOMAS S GS
4320 WORNALL RD
308 MEDICAL PLAZA
KANSAS CITY, MO 64111
HELLMAN, RICHARD IM
2411 HOLMES
KANSAS CITY, MO 64108
HELMAN, RICHARD G OBG
INDIAN CREEK NURSING CTR
12000 WORNALL RM 702
KANSAS CITY, MO 64145
HEMAYA, RIZK M P
600 E 22ND ST
KANSAS CITY, MO 64108
HENRY, CLARKE L TS
4320 WORNALL RD
KANSAS CITY, MO 64111
HERDOIZA, ALFONSO W AN
751 E 63RD ST
KANSAS CITY, MO 64110
HERMAN, EDWIN M R
900 HIGHLAND PROF TOWER
6724 TROOST
KANSAS CITY, MO 64131
HERVEY, WM H AN
WORNALL RD AT 44TH
KANSAS CITY, MO 64111
HERYER, JOHN W GS
3910 W 103RD ST
OVERLAND PARK, KS 66207
HIBBARD, BLAINE Z IM
4320 WORNALL RD
KANSAS CITY, MO 64111
HICKERSON, WM H GP
604 W MAPLE
INDEPENDENCE, MO 64050
HIGGINS, RONALD A D
340 CARONDELET MED OFF
1010 CARONDELET DR
KANSAS CITY, MO 64114
HILL, JACK H PTH
8115 MEADOW LANE
SHAWNEE MISSION, KS 66206
HINK, FREDERICK W GP
10229 INDEPENDENCE AVE
INDEPENDENCE, MO 64053
HIRSCH, JOE F CRS
510 PLAZA PARKWAY BLDG
4620 JC NICHOLS PKWY
KANSAS CITY, MO 64112
HOADLEY, WM D IM
KU MED CTR BLDG 206A
39TH & RAINBOW BLVD
KANSAS CITY, KS 66103
HODGSON, FRANK H GS
4301 MAIN ST
KANSAS CITY, MO 64111
HOECH, GEO P AN
6400 PROSPECT
KANSAS CITY, MO 64132
HOEPER, SAML D GP
12921 GRANDVIEW RD
GRANDVIEW, MO 64030
HOEPER, SAMUEL D JR IM
12921 GRANVIEW RD
GRANDVIEW, MO 64030
HOF, DAVID G PUD
530 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111

HOFFMAN, JACOB S IM
APT 908
221 W 48TH ST
KANSAS CITY, MO 64112
HOFFMANN, ALAN L FP
6300 EVANSTON
KANSAS CITY, MO 64133
HOFFMANN, LEE M PD
4914 BELINDER RD.
SHAWNEE MISSION, KS 66205
HOLDER, THOS M PDS
509 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY, MO 64111
HOLLINGER, LLOYD A PUD
6700 TROOST
KANSAS CITY, MO 64131
HOLMAN, JOS G A
4620 J C NICHOLS PKWY
KANSAS CITY, MO 64112
HOLT, WALDO S IM
4620 J C NICHOLS PKWY
KANSAS CITY, MO 64112
HOLTON, EDWARD B GP
10901 WINNER RD
INDEPENDENCE, MO 64052
HOOK, WALLER G CRS
10010 EL MONTE
SHAWNEE MISSION, KS 66207
HOPKINS, JAMES P PS
6700 TROOST AVE
KANSAS CITY, MO 64131
HORNSTRA, ROBIJN K P
6724 TROOST
KANSAS CITY, MO 64131
HOTCHKISS, ROBERT L FP
KANSAS CITY HEALTH DEPT
414 E 12TH ST
KANSAS CITY, MO 64106
HOUSTON, MONICA T IM
CONSORTIUM FOR HEALTH EDUCAT
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64108
HOWARD, CAMPBELL P PD
CHILDREN'S MERCY HOSP
24TH AND GILLHAM RD.
KANSAS CITY, MO 64108
HUGHES, MICHAEL F OTO
1010 CARONDELET DR
SUITE 224
KANSAS CITY, MO 64114
HUGHES, ROBERT E PD
4400 BROADWAY
KANSAS CITY, MO 64111
HUNGATE, CARROLL P OM
522 PROFESSIONAL BLDG
1103 GRAND AVE
KANSAS CITY, MO 64106
HUNKELER, JOHN D OPH
230 PENN PARK BLDG
2928 MAIN
KANSAS CITY, MO 64108
HUNT, THOS R NS
6400 PROSPECT AVE
KANSAS CITY, MO 64132
UNZICKER, WARREN J IM
1248 STRATFORD RD
KANSAS CITY, MO 64113
USE, WM J OBG
2929 BALTIMORE
SUITE 200
KANSAS CITY, MO 64108
USTON, KENT A IM
4320 WORNALL RD
MED PLAZA BLD ST 212
KANSAS CITY, MO 64111
UTSON, BRUCE P FM
4400 BROADWAY
SUITE 306
KANSAS CITY, MO 64111
YDE, LAWRENCE L OPH
230 PENN PARK MED BLDG
2920 MAIN ST
KANSAS CITY, MO 64108
NES, MICHAEL F PS
1010 CARONDELET
SUITE440
KANSAS CITY, MO 64114
ARRA, GUILLERMO P
4400 BROADWAY
KANSAS CITY, MO 64111
IGHAM, WALTON C GS
4320 WORNALL RD
KANSAS CITY, MO 64111
VINE, JOHN W OPH
8800 E 60RD ST
RAYTOWN, MO 64133
WIG, FRED IM
5109 W 87TH ST
SHAWNEE MISSION, KS 66207
ER, JOSEPH P IM
CONSORTIUM FOR HEALTH EDUC
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64100
CKSON, DOROTHY IM
7404 EAST 133RD ST
GRANDVIEW, MO 64030
CKSON, HAYWOOD R IM
3317 E 43RD ST
KANSAS CITY, MO 64130

JACOBS, MORTON P
P O. BOX 22306
KANSAS CITY, MO 64113
JACOBS, WALTER H GE
6656 MILHAVEN DRIVE
MISSION, KS 66202
JACOBSON, MICHAEL NEP
1734 E 63RD ST
KANSAS CITY, MO 64110
JAMES, OTIS F ORS
6306 MORNINGSIDE DR
KANSAS CITY, MO 64113
JAZBI, BASHARAT U OTO
CHILDRENS MERCY HOSP
24TH & GILLHAM
KANSAS CITY, MO 64108
JELLEY, V C OM
P O BOX 370
BLUE SPRINGS, MO 64015
JENAB, MORTEZA J CD
6700 TROOST SUITE 428
428 ROCKHILL MED BLDG
KANSAS CITY, MO 64131
JENKINS, DAVID C CLP
COMMUNITY BLOOD CTR
4040 MAIN
KANSAS CITY, MO 64111
JENNETT, J H IM
1500 PROF BLDG 1103 GRA
KANSAS CITY, MO 64106
JOHNSON, C L U
2929 BALTIMORE
KANSAS CITY, MO 64108
JOHNSON, DALLAS A D
6700 TROOST STE 504
KANSAS CITY, MO 64131
JOHNSON, GARETH R PTH
13111 E 57TH ST
KANSAS CITY, MO 64133
JOHNSON, JAMES S OBG
4301 CLEVELAND
KANSAS CITY, MO 64130
JOHNSON, JOS F FP
707 W MONTCREW
KANSAS CITY, MO 64114
JOHNSON, NELSON E OBG
SUITE 613
6724 TROOST
KANSAS CITY, MO 64131
JOHNSON, RICHARD L IM
6400 PROSPECT STE 333
KANSAS CITY, MO 64132
JOHNSON, THOMAS W FP
210 WEST 99TH TERRACE
KANSAS CITY, MO 64114
JOHNSON, THOS M GS
8127 EL MONTE
SHAWNEE MISSION, KS 66208
JOHNSON, WARREN L CD
410 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
JONAS, HARRY S OBG
DEAN UMKC SCHOOL OF MED
2411 HOLMES
KANSAS CITY, MO 64108
JONES, GALE O AN
6400 PROSPECT STE 142
KANSAS CITY, MO 64132
JONES, MARION E U
2462A BROOKLYN AVE
KANSAS CITY, MO 64127
JONES, SAML T OPH
9915 CHEROKEE LN
SHAWNEE MISSION, KS 66206
JONES, T R IM
4320 WORNALL RD SUITE 6
KANSAS CITY, MO 64111
JOYCE, STEVEN T ORS
610 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111
JUDY, BERNARD Q IM
310 CARONDELET MED BLDG
1010 CARONDELET DR
KANSAS CITY, MO 64114
JUSTUS, JOHN B IM
4620 J C NICHOLS PKWY
KANSAS CITY, MO 64112
KABACK, KEITH R IM
APT 1A 5240 FOXRIDGE DR
MISSION, KS 66202
KAHN, MARVIN IM
STATLAND CLINIC
6724 TROOST-STE 710
KANSAS CITY, MO 64131
KANAREK, JOSEPH PD
601 E 63RD ST
KANSAS CITY, MO 64110
KANDT, RAYMOND E OPH
416 CARONDELET MEDICAL
1010 CARONDELET DR
KANSAS CITY, MO 64114
KANTOR, JULIUS M PD
601 E 63RD ST SUITE 406
KANSAS CITY, MO 64110
KANTOR, SAML OPH
1039 GENEVA DR
P O BOX 1389
PRESCOTT, AZ 86301

KARTUS, IRVING P
PO BOX 6453
LEAWOOD, KS 66206
KASSAR, NAIM S OBG
TRUMAN MED. CTR. DEPT OBG
2301 HOLMES ST
KANSAS CITY, MO 64108
KAUFMAN, ANDREW B NS
400 ROCKHILL MED. BLD.
6700 TROOST,
KANSAS CITY, MO 64131
KAUFMANN, HERBERT H OBG
6724 TROOST STE 210
KANSAS CITY, MO 64131
KAUL, PHILIP G IM
4320 WORNALL RD
KANSAS CITY, MO 64111
KAY, BILLY F IM
10326 SAGAMORE LANE
SHAWNEE MISSION, KS 66206
KAYANAN, JOSE C GS
335 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108
KEAIRNES, HAROLD W IM
300 ROCKHILL MED BLDG.
6700 TROOST
KANSAS CITY, MO 64131
KEITGES, PIERRE W PTH
PHYSICIANS REF LAB
1010 W CARONDELET DR
KANSAS CITY, MO 64114
KELLING, DOUGLAS G OM
11021 WEST 96TH TERRACE
OVERLAND PARK, KS 66214
KELLY, CHARLES R PM
ST LUKE'S HOSP
44TH AND WORNALL RD.
KANSAS CITY, MO 64111
KELTNER, RAYMOND O OBG
4400 BROADWAY-SUITE 302
KANSAS CITY, MO 64111
KENDALL, CHAS A IM
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
KENDALL, FORREST H OTO
SUITE 224
1010 CARONDELET DR
KANSAS CITY, MO 64114
KENDALL, MALCOLM F CD
6724 TROOST
KANSAS CITY, MO 64131
KENISTON, WILLIAM D III IM
3941 WILLOW APT 103
KANSAS CITY, MO 64133
KENNARD, G K GS
4400 BROADWAY
KANSAS CITY, MO 64111
KENNEDY, FRED R GS
4320 WORNALL RD
KANSAS CITY, MO 64111
KENNEDY, TIMOTHY D R
2929 BALTIMORE ST E340
KANSAS CITY, MO 64108
KENNEY, JOHN D AN
SUITE 12
751 E 63RD ST
KANSAS CITY, MO 64110
KENT, BELA K OBG
6724 TROOST AVE
KANSAS CITY, MO 64131
KERNODLE, JEFFERSON D PTH
P O BOX 2778
KANSAS CITY, MO 64142
KERR, HAROLD H TS
8121 NW MIAMI ST
KANSAS CITY, MO 64152
KETTERMAN, GRACE H CHP
CRITTENTON CENTER
10918 ELM AVE
KANSAS CITY, MO 64134
KETTERMAN, HERBERT L GP
11201 COLORADO
KANSAS CITY, MO 64137
KHARE, NARENDRA K U
TRUMAN MED CTR
2301 HOLMES
KANSAS CITY, MO 64108
KHOURY, CECILE S AN
10204 HOWE LANE
LEAWOOD, KS 66206
KIENE, RICHARD H ORS
4320 WORNALL RD
KANSAS CITY, MO 64111
KILLEN, DUNCAN A TS
510 MED PLAZA BLDG
4320 WORNALL RD
KANSAS CITY, MO 64111
KIMBALL, MERRITT H AN
610 E 36TH
KANSAS CITY, MO 64109
KIMBLE, HARVEY S AN
9041 NALL AVE
SHAWNEE MISSION, KS 66207
KINDRED, LYNN H CD
4320 WORNALL
KANSAS CITY, MO 64111
KING, JAY T CD
4320 WORNALL RD
KANSAS CITY, MO 64111

KINGSBURY, HELEN AN
6415 SAGAMORE RD
SHAWNEE MISSION, KS 66208

KIRCHMER, JOHN T GS
SUITE T211 RESEARCH MED OFF
6420 PROSPECT AVE
KANSAS CITY, MO 64132

KIRCHMER, NANCY A PDR
CHILDREN'S MERCY HOSP
RAD DEPT 24TH & GILLHAM
KANSAS CITY, MO 64108

KITCHEN, WM M R
2929 BALTIMORE AVE
KANSAS CITY, MO 64108

KLEIN, EDWARD H GS
7011 RAE AVE
PRAIRIE VILLAGE, KS 66208

KLOTZ, STEPHEN A IM
8036 PAWNEE #102
SHAWNEE MISSION, KS 66208

KNIGHT, LYLE B GP
108 MADISON
LEE'S SUMMIT, MO 64063

KNIGHTEN, YVONNE M D
1515 TRUMAN RD
SUITE 302
INDEPENDENCE, MO 64050

KNOCH, H K OBG
328 ST JOSEPH MED BLDG
1010 CARONDELET DR
KANSAS CITY, MO 64114

KOHAKE, GEORGE A IM
23RD & HOLMES
TRUMAN MEDICAL CENTER
KANSAS CITY, MO 64108

KOON, BENNY H FP
GOPPERT FAMILY CARE CTR
6601 ROCKHILL RD
KANSAS CITY, MO 64131

KOONTZ, PAUL G GS
4320 WORNALL RD
KANSAS CITY, MO 64111

KOPP, KENNETH R IM
373 W 101ST TERR
KANSAS CITY, MO 64114

KOPPERMAN, MORDECAI DR
900 HIGHLAND PROFESSION
6724 TROOST
KANSAS CITY, MO 64131

KOPPERS, LAWRENCE E IM
208 MEDICAL PLAZA
4320 WORNALL
KANSAS CITY, MO 64111

KOPRIVICA, PRESTON B EM
CONSORTIUM FOR HEALTH EDUC
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64108

KORTH, WM M GS
6300 MIDNIGHT PASS RD V
SARASOTA, FL 33581

KOURY, WILLIAM C DR
4320 WORNALL RD STE 710
KANSAS CITY, MO 64111

KRAFT, JACOB GS
6700 TROSST
KANSAS CITY, MO 64131

KRANSON, SEYMOUR J PD
909 W JOHSTON AVE
HEMET, CA 92343

KRETZSCHMAR, ROBERT M OBG
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY, MO 64108

KRISHNA, PADMA PD
WAYNE MINER HEALTH CENTER
825 EUCLID
KANSAS CITY, MO 64124

KUHN, WM F OM
6247 BROOKSIDE BLVD
KANSAS CITY, MO 64113

KUNZ, STEPHEN R R
10348 CHEROKEE
LEAWOOD, KS 66206

KURTZ, KARL J U
4400 BROADWAY
SUITE 412
KANSAS CITY, MO 64111

KYGER, JOHN E AN
3612 BLUE RIDGE BLVD
INDEPENDENCE, MO 64052

LABACH, JAMES P PTH
TRUMAN MED CTR
2301 HOLMES
KANSAS CITY, MO 64100

LABAYEN, RICARDO A GS
7031 SANTA FE DR
SHAWNEE MISSION, KS 66204

LAIBEN, GREGG R IM
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64108

LAL, ROOP IM
2624 W 77TH ST
PRAIRIE VILLAGE, KS 66208

LALLY, JAMES J GS
4620 NICHOLS PKWY
KANSAS CITY, MO 64112

LAMBERT, LAURA M GP
1039 PARKWOOD DR
ORMOND BEACH, FL 32074

LAMBIE, RODGER W R
900 HIGHLAND PROF TOWER
6724 TROOST
KANSAS CITY, MO 64131

LANDERS, BURNELL GE
6400 PROSPECT SUITE 300
KANSAS CITY, MO 64132

LANDIS, GEO K IM
1102 GRAND AVE
KANSAS CITY, MO 64106

LANGLEY, HARRIET S IM
5900 STATE LINE RD
SHAWNEE MISSION, KS 66208

LAPI, ANGELO PTH
2012 STRATFORD RD
SHAWNEE MISSION, KS 66208

LAPP, HARRY C GS
612 SHAMROCK
211 VILLA I
LEE'S SUMMIT, MO 64063

LARSEN, WM E IM
2929 BALTIMORE
KANSAS CITY, MO 64108

LATHAM, RAYMOND W PD
206 BROADWAY MED BUILDING
4400 BROADWAY
KANSAS CITY, MO 64111

LAUER, DANL J IM
236 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111

LAYLE, JOHN K IM
4320 WORNALL
KANSAS CITY, MO 64111

LAYTON, IRA C IM
6400 PROSPECT AVE STE 3
KANSAS CITY, MO 64132

LEE, GERALD B CD
101 MERMORIAL DR
KANSAS CITY, MO 64108

LEE, HENRY A R
6700 TROOST
352 ROCKHILL MED BLD
KANSAS CITY, MO 64131

LEE, KING Y OPH
6700 TROOST AVE
KANSAS CITY, MO 64131

LEE, LAWRENCE E TR
10102 GILLETTE
LENEXA, KS 66215

LEE, TAE H NEP
300 THE CITADEL
1743 E 63RD ST
KANSAS CITY, MO 64110

LEES, JOYCE M GS
TRINITY LUTHERAN HOSP
31ST & WYANDOTTE ST
KANSAS CITY, MO 64108

LEESE, PHILIP T EM
6120 LAMAR AVE
MISSION, KS 66202

LEGARDA, MARIA M N
P O BOX 7253
KANSAS CITY, MO 64113

LEHNER, RICHARD L CD
MEDICAL PLAZA BLDG SUIT
4320 WORNALL RD
KANSAS CITY, MO 64111

LEIBSOHN, JOEL M OPH
1515 W TRUMAN RD
INDEPENDENCE, MO 64050

LEIFER, WM W U
703 HIGHLANDS PROF TOWE
6724 TROOST
KANSAS CITY, MO 64131

LENTZ, CLARK H OM
2600 W 69TH ST
SHAWNEE MISSION, KS 66208

LENTZ, HAROLD C U
1515 W TRUMAN RD
SUITE 404
KANSAS CITY, MO 64050

LERNER, BRUCE AN
10621 W 102ND ST
SHAWNEE MISSION, KS 66214

LETIZIA, WAYNE L IM
1515 W TRUMAN RD
INDEPENDENCE, MO 64050

LEVEY, HARRY B OBG
310 HIGHLANDS PROFESSIO
6724 TROOST
KANSAS CITY, MO 64131

LEWIS, FRANK H IM
1515 W TRUMAN RD
SUITE 403
INDEPENDENCE, MO 64050

LEWIS, REVIS C NS
PENN PARK MED BLDG STE
2929 BALTIMORE
KANSAS CITY, MO 64108

LEWITTON, SOLOMON GS
410 HIGHLAND PROF TOWER
6724 TROOST
KANSAS CITY, MO 64131

LIANG, JING C GS
17221 E 23RD
INDEPENDENCE, MO 64057

LICHTOR, JOS M ORS
6724 TROOST SUITE 409
KANSAS CITY, MO 64131

LINDGREN, CARLETON J P
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133

LINDQUIST, CARL N OM
RT 4 BOX 150
REEDS SPRING, MO 65737

LINK, VANCE E FP
1515 W TRUMAN RD STE 30
INDEPENDENCE, MO 64050

LINVILLE, HOWARD E GS
6700 TROOST AV STE 444
KANSAS CITY, MO 64131

LITTON, NANCY J PTH
SUITE 206
1600 WEST HIGHWAY 40
BLUE SPRINGS, MO 64015

LIU, BEN C OBG
310 HIGHLANDS PROEESSIO
6724 TROOST
KANSAS CITY, MO 64131

LIU, JOHNS N R
6724 TROOST SUITE 900
KANSAS CITY, MO 64131

LOCKWOOD, GARY F OBG
4320 WORNALL RD STE 520
KANSAS CITY, MO 64111

LOCKWOOD, TED E PS
4400 BROADWAY
KANSAS CITY, MO 64111

LOFTUS, LORETTA S IM
4320 WORNALL RD SUITE 530
KANSAS CITY, MO 64111

LOHRENTZ, LOIS H AN
2800 W 50TH TERRACE
SHAWNEE MISSION, KS 66205

LONG, R S FP
6601 ROCKHILL ROAD
KANSAS CITY, MO 64131

LOPEZ-PLATA, ROBERTO GS
751 E 63RD ST
SUITE 378
KANSAS CITY, MO 64110

LORD, JAMES L FP
1515 W TRUMAN ROAD
SUITE 504
INDEPENDENCE, MO 64050

LORENZO, EDILBERTO B CHP
1820 W 91ST PLACE
KANSAS CITY, MO 64114

LORENZO-MEDINA, REMEDIOS IM
509 W 119TH TERR
KANSAS CITY, MO 64145

LOTUACO, GAMALIEL G PS
4400 BROADWAY
KANSAS CITY, MO 64111

LOUTZENHISER, JAMES K P
1010 CARONDELET DR
SUITE 424
KANSAS CITY, MO 64114

LUETJE, CHARLES M OTO
105 PENN PARK
2928 MAIN
KANSAS CITY, MO 64108

LYDDON, HAROLD R FP
1221 W 67TH ST
KANSAS CITY, MO 64113

MABEN, SAM E IM
9406 E 63RD
KANSAS CITY, MO 64133

MAC GEE, EDWIN E NS
4440 BROADWAY
KANSAS CITY, MO 64111

MAC INNIS, FLORENCE E PUD
503 PLAZA PARKWAY BLDG
4620 J C NICHOLS PKWY
KANSAS CITY, MO 64112

MAC NAUGHTON, RALPH E DR
CARONDELET RADIOLOGY IN
1010 CARONDELET DR R
KANSAS CITY, MO 64114

MAC NAUGHTON, ROBT A R
CARONDELET RADIOLOGY IN
1010 CARONDELET DR R
KANSAS CITY, MO 64114

MACDONALD, ROBIN K DR
352 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131

MAHMOUD, SAID F IM
12701 EATON CIRCLE
LEAWOOD, KS 66209

MAIS, THOMAS E R
12864 SAGAMORE RD
SHAWNEE MISSION, KS 66208

MALOUF, ALEXANDER G IM
4320 WORNALL RD STE 514
KANSAS CITY, MO 64111

MALLOW, JAMES E PUD
2401 WEST 93RD ST
SHAWNEE MISSION, KS 66206

MANGUM, WILLIAM B OTO
434 BLUE RIDGE TOWER
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133

MANION, THOS S U
1515 TRUMAN RD
INDEPENDENCE, MO 64050

MANUEL, LOUIS C OPH
1734 E 63RD ST
KANSAS CITY, MO 64110

MARKS, MARK M	6537 SUMMIT ST KANSAS CITY, MO 64113	CRS
MARSH, ALICE	PLEASANT HILL, MO 64080	PD
MARSHALL, CAMERON F	C/O CAROL MARSHALL 1107 TOPEKA ST EMPORIA, KS 66801	OBG
MARSHALL, HAL E	4949 ROCKHILL RD KANSAS CITY, MO 64110	PTH
MARTIN, CATALINO V	101 MEMORIAL DR ST MARYS HOSPITAL KANSAS CITY, MO 64108	AN
MARTIN, CLYDE V	321 RED BRIDGE PROF BLDG. 400 E. RED BRIDGE RD KANSAS CITY, MO 64131	P
MARTIN, MARK W	6601 ROCKHILL RD KANSAS CITY, MO 64131	FP
MASON, WAYNE E	6700 TROOST STE 352 KANSAS CITY, MO 64131	R
MASSARAT, PARVIZ	TRUMAN MED CTR DEPT OF RAD 2301 HOLMES ST KANSAS CITY, MO 64108	R
MASUCCI, JOS M	600 ARGYLE BLDG 306 EAST 12 ST KANSAS CITY, MO 64106	OM
MATOVICH, VIOLET B	UNIV OF MO K C 2411 HOLMES KANSAS CITY, MO 64108	N
MATTA, CAMILLE S	4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	OPH
MAYER, JOHN H	503 PLAZA PKWY BLDG 4620 J C NICHOLS PKW KANSAS CITY, MO 64112	TS
MC AFEE, ROBT G	4121 WEST 83RD ST SUITE 150 SHAWNEE MISSION, KS 66200	P
MC BRIDE, NANCY M	4400 BROADWAY SUITE 302 KANSAS CITY, MO 64111	OBG
MC CALLISTER, BEN D	4320 WORNALL RD KANSAS CITY, MO 64111	CD
MC CANSE, ANDREW	4320 WORNALL RD STE 332 KANSAS CITY, MO 64111	GS
MC CLANAHAN, ROBT C	1200 BRYANT BLDG 1102 GRAND AVE KANSAS CITY, MO 64106	IM
MC CONAHAY, DAVID R	4320 WORNALL ROAD KANSAS CITY, MO 64111	CD
MC CONCHIE, JAMES E	1515 TRUMAN RD INDEPENDENCE, MO 64050	R
C COY, FREDERICK J	4177 BROADWAY KANSAS CITY, MO 64111	PS
C CRAY, GLEN M	24TH & GILLHAM RDS KANSAS CITY, MO 64108	CHP
C CULLOUGH, CAMPBELL C JR	P O BOX 78 OAK GROVE, MO 64075	ORS
C DONALD, HERBERT L	1010 CARONDELET DR SUITE 301 KANSAS CITY, MO 64114	TS
C DONNELL, JOHN F	4320 WORNALL RD KANSAS CITY, MO 64111	IM
C ELROY, CARLA N	ST MARYS HOSPITAL EMERG DEPT - 101 MEMORIAL KANSAS CITY, MO 64108	GP
C FARLAND, H R	4320 WORNALL KANSAS CITY, MO 64111	N
C FARLAND, M D	4320 WORNALL RD KANSAS CITY, MO 64111	IM
C GANNON, PAUL T	6400 PROSPECT KANSAS CITY, MO 64132	GS
C GUIRE, THOS H	SUITE T-307 6420 PROSPECT KANSAS CITY, MO 64132	OBG
INTOSH, DONALD E	6400 PROSPECT KANSAS CITY, MO 64132	AN
INTOSH, MICHELE C	11200 WINNE RD INDEPENDENCE, MO 64052	PD
MC INTYRE, JOHN D	4948 WESTWOOD RD KANSAS CITY, MO 64112	AN
MC KEE, FRANK E	11201 COLORADO KANSAS CITY, MO 64137	OPH
MC KEE, WALLACE P	4320 WORNALL RD KANSAS CITY, MO 64111	IM
MC KEEL, THOS B	615 HIGHLAND PROF 6724 TROOST KANSAS CITY, MO 64131	IM
MC KNELLY, WM V	39TH & RAINBOW BLVD KANSAS CITY, KS 66103	P
MC LAUGHLIN, DURNELL	1734 EAST 63RD ST SUITE 502 KANSAS CITY, MO 64110	OPH
MC LEMORE, WILLIE O	UMKC SCHOOL OF MEDICINE 2411 HOLMES KANSAS CITY, MO 64100	IM
MC MILLAN, THOS E	8201 DEARBORN DR SHAWNEE MISSION, KS 66208	U
MC NABNEY, W K	TRUMAN MEDICAL CTR 2301 HOLMES KANSAS CITY, MO 64108	TRS
MC NUTT, THEODORE L	LEES SUMMIT CLINIC 615 W 3RD STREET LEE'S SUMMIT, MO 64063	GP
MEDLEY, BENJAMIN E	1010 CARONDELET DR SUITE 114 KANSAS CITY, MO 64114	DR
MEDLICOTT, WILLIAM J	4320 WORNALL RD KANSAS CITY, MO 64111	ORS
MEEGAN, ROBT J	2929 BALTIMORE AVE KANSAS CITY, MO 64108	R
MEHTA, SATISH K	751 E 63RD ST. SUITE 378 KANSAS CITY, MO 64110	IM
MEHTAA, URMILA J	WAYNE MINER HEALTH CTR 825 UCLID AVE KANSAS CITY, MO 64124	AN
MEIKLEJOHN, DUNCAN C	2116 S STERLING INDEPENDENCE, MO 64052	OBG
MELGAARD, SVEN R	12887 CAMBRIDGE CIRCLE LEAWOOD, KS 66209	AN
MELIA, B J JR	216 CARONDELET MEDICAL BLDG. 1010 CARONDELET DR KANSAS CITY, MO 64114	D
MENENDEZ, JOSE O	P. O. BOX 748 INDEPENDENCE, MO 64052	P
MERVEILLE, OCTAVE C	24TH AND GILLHAM RD KANSAS CITY, MO 64108	OS
METZL, KURT	601 E 63RD KANSAS CITY, MO 64110	PD
MEYER, PAUL W	610 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	ORS
MEYER, ROBERT D	25 E 70TH STREET KANSAS CITY, MO 64113	IM
MICHELSON, RICHARD B	P O BOX 169 3637 BROADWAY KANSAS CITY, MO 64141	GPM
MIKKELSEN, NANCY R	3905 N E 59TH ST KANSAS CITY, MO 64119	IM
MILES, GEO O	9020 MISSION RD SHAWNEE MISSION, KS 66206	GS
MILGRAM, BYRON A	6724 TROOST KANSAS CITY, MO 64131	P
MILLER, CLINT L	615 W 3RD ST LEE'S SUMMIT, MO 64063	OM
MILLER, GERALD L	8417 ENSLEY LANE SHAWNEE MISSION, KS 66206	OBG
MILLER, GERALD L JR	SUITE 212 RESEARCH MEDICAL OFF KANSAS CITY, MO 64132	OBG
MILLER, MAX I	5620 HIGH DR SHAWNEE MISSION, KS 66208	AN
MILLER, MICHAEL R	WAYNE MINER HEALTH CENTER 825 EUCLID AVE KANSAS CITY, MO 64124	IM
MILLER, WILSON H	511 PLAZA PKWY BLDG 4620 NICHOLS PKWY KANSAS CITY, MO 64112	IM
MINNIGERODE, LANA K	REHABILITATION INST 3011 BALTIMORE KANSAS CITY, MO 64108	PM
MINNIGERODE, TURNER L	2316 E MEYER BLVD KANSAS CITY, MO 64132	IM
MIR, ABDUL R	1734 E 63RD ST KANSAS CITY, MO 64110	IM
MITCHELL, ANDREW D	4320 WORNALL RD KANSAS CITY, MO 64111	U
MITCHELL, JOHN D	220 PENN PARK 2928 MAIN KANSAS CITY, MO 64100	U
MITCHELL, ROBT H	410 BRYANT BLDG 1102 GRAND AVE KANSAS CITY, MO 64106	OBG
MITRA, NIRMAL K	11201 COLORADO KANSAS CITY, MO 64137	PD
MIXSON, WM C	4320 WORNALL RD KANSAS CITY, MO 64111	OBG
MONTELLO, SAMUEL A	SUITE T-307 6420 PROSPECT KANSAS CITY, MO 64132	OBG
MOOK, DAVID G	9734 WORNALL KANSAS CITY, MO 64114	IM
MOONEY, JUSTIN L	6740 W 52ND PL SHAWNEE MISSION, KS 66202	D
MOORE, DAVID L	4400 BROADWAY KANSAS CITY, MO 64111	GS
MOORE, JACK D	4320 WORNALL RD KANSAS CITY, MO 64111	U
MOORE, JOHN M	3636 GILLHAM RD KANSAS CITY, MO 64111	IM
MOORE, Y SCOTT	WESTERN MO MENT HLTH CTR 600 E 22ND ST KANSAS CITY, MO 64108	FP
MORANTZ, ROBERT A	400 ROCKHILL MEDICAL BLDG 6700 TROOST KANSAS CITY, MO 64131	N
MOREANO, ARMANDO H	21 W 43RD ST KANSAS CITY, MO 64111	GP
MOREST, F S	12818 D COPPER CLIFF AVE AUSTIN, TX 78758	IM
MORGAN, DAVID B	4620 J C NICHOLS PKWY KANSAS CITY, MO 64112	D
MORGAN, WM R	CARONDELET MEDICAL BLDG 1010 CARONDELET DR-S KANSAS CITY, MO 64114	PS
MORLEY, LOUISE A	4907 NEUSHO SHAWNEE MISSION, KS 66205	GP
MORRIS, J H	4240 BLUE RIDGE BLVD KANSAS CITY, MO 64133	IM
MORRIS, TERRY V	1515 W TRUMAN RD INDEPENDENCE, MO 64050	OBG
MORRISON, DONALD H	4545 WORNALL RD KANSAS CITY, MO 64111	AN
MORRISON, J S	424 NICHOLS RD KANSAS CITY, MO 64112	P
MOSBACHER, HUGH E	109 IRONBARK LAKEWOOD LEE'S SUMMIT, MO 64063	PS
MOSS, PAUL	4706 BROADWAY KANSAS CITY, MO 64112	GE
MOUNTFORD, DAMUN W	9503 E 63RD ST KANSAS CITY, MO 64133	EM
MOELLER, MARTIN J	6400 PROSPECT SUITE 316 KANSAS CITY, MO 64132	IM
MOENCH, LAURENCE W	8010 SAGAMORE SHAWNEE MISSION, KS 66206	AN
MULLEN, CHRISTOPHER J	6563 WEST FOXRIDGE APT 2055 SHAWNEE MISSION, KS 66202	IM
MULLEN, LEO M	4443 PASEO BLVD KANSAS CITY, MO 64110	GP

MUNDY, WM L IM
9734 WORNALL RD
KANSAS CITY, MO 64114

MUNYAN, EARL A IM
17221 E 23RD ST
SUITE 113
INDEPENDENCE, MO 64057

MURMANN, DON IM
111 W 67TH ST
KANSAS CITY, MO 64113

MURPHY EVERETT M III PUD
545 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108

MURPHY, JAMES J P
C/O SITES
7829 HEDGES
KANSAS CITY, MO 64138

MURPHY, ROBT J D
6428 HIGH DR
SHAWNEE MISSION, KS 66208

MURRAY, W L OPH
4601 W 109TH
SUITE 225
OVERLAND PARK, KS 66211

MUTCHNICK. NORMAN GS
6724 TROOST
SUITE 910
KANSAS CITY. MO 64131

MUTH, ROBT G NEP
8229 BELINDER RD
SHAWNEE MISSION, KS 66206

MUTHER, RICHARD S IM
500 ROCKHILL MED BLDG.
6700 TROOST
KANSAS CITY. MO 64131

MYERS, GEO H U
1010 CARONDELET DR
KANSAS CITY, MO 64114

MYERS, JOHN S OM
425 HUNTINGTON RD
KANSAS CITY, MO 64113

MYERS, ROBT M FP
2310 STONE BLVD
RAYMORE, MO 64083

MYRON, MARK C IM
1016 W 69TH TERR
KANSAS CITY, MO 64113

NAIMF, MANSOUR J PD
136 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY. MO 64131

NELSON BENTLEY A OTO
1010 CARONDELET DR
SUITE 224
KANSAS CITY. MO 64114

NESSELRODE. JOHN H. GS
1515 W TRUMAN RD
STE 402
INDEPENDENCE MO 64050

NEUMANN, JAMES W N
2929 BALTIMORE STE 215
KANSAS CITY. MO 64108

NEWMAN, ROBT L OBG
ST LUKES HOSP
44TH & WORNALL RD
KANSAS CITY, MO 64111

NICHOLAS, THOMAS A FP
DEPT OF FAMILY PRACTICE
LITTLE BLUE-LEES SUMMIT
KANSAS CITY. MO 64139

NICHOLIS, GEORGE R PD
373 W 101ST TERR
KANSAS CITY. MO 64114

NICKELL, BARRY L IM
132 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY MO 64111

NIELSON, MICHAEL H OBG
1515 W TRUMAN RD ST 306
INDEPENDENCE. MO 64050

NIGRO. EDWARD R CD
1340 S OCN BLV #2209
POMPANO BEACH. FL 33062

NIGRO, JOS A GS
5715 WINDSOR DR
SHAWNEE MISSION KS 66205

NIGRO, THOMAS L GS
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY MO 64108

NOBACK RICHARDSON K IM
UMKC SCHOOL OF MED
2411 HOLMES
KANSAS CITY, MO 64108

NOLTENSMEYER, MILTON H AN
3305 W 50TH TERR
SHAWNEE MISSION, KS 66205

NOVAK EDWARD J PM
3011 BALTIMORE
KANSAS CITY, MO 64108

O'FARRELL, THOS F GS
300 RESEARCH MED OFFICE
6400 PROSPECT
KANSAS CITY. MO 64132

O'HEARNE, JOHN J P
4706 BROADWAY
KANSAS CITY. MO 64112

O'KELL, RICHARD T PTH
ST LUKES HOSP DEPT PATH
44TH & WORNALL RD
KANSAS CITY, MO 64111

O'MALLEY. JAMES F U
6700 TROOST
SUITE 408
KANSAS CITY, MO 64131

O'NEIL, JAMES H GS
275 TAIT TERRACE SE
PORT CHARLOTTE, FL 33952

OLMO-TERRON, NEFTALI P
601 E 63RD ST
SUITE 403
KANSAS CITY, MO 64110

OLSON, LLOYD C PD
24TH AND GILLHAM RD
CHILDRENS MERCY HOSP
KANSAS CITY, MO 64108

ORGAN. ALAN E PD
601 E 63RD ST
SUITE 311
KANSAS CITY, MO 64110

OSBORNE, JERE O OM
1010 OZARK NATL LIFE BLDG
906 GRAND
KANSAS CITY, MO 64106

OST, MARK D PTH
6550 B TROOST
KANSAS CITY, MO 64131

OTRAKJI, JEAN NEP
1734 E 63RD ST
KANSAS CITY, MO 64110

OVERESCH, HARRY B ORS
6400 PROSPECT AVE
KANSAS CITY, MO 64132

OWENS, JAMES L OBG
302 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY, MO 64111

OWENS, ROBT H U
6700 TROOST 408
KANSAS CITY, MO 64131

OXLEY, DWIGHT K CLP
1010 W CARONDELET SUITE 126
KANSAS CITY, MO 64114

OZAR, MILTON B U
1206 W 62ND
KANSAS CITY, MO 64113

OZAR, STUART J IM
CONSORTIUM FOR HEALTH EDUC
2920 MCGEE TRAFFICWAY
KANSAS CITY, MO 64108

PACK, GARY L N
4620 J.C NICHOLS PKWY
SUITE 515
KANSAS CITY, MO 64112

PADULA, RICHARD T TS
SUITE T211 RESEARCH MED OFF
6420 PROSPECT AVE
KANSAS CITY, MO 64132

PAKULA, SIDNEY F PD
P O BOX 8552
10839 STATE LINE RD
KANSAS CITY MO 64114

PALAZOLA, JOSEPH M IM
4320 WORNALL
SUITE 440
KANSAS CITY, MO 64111

PAONE DOUGLAS B IM
316 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY MO 64132

PAREKH, MADHAVI A PTH
UNIV HEALTH SCIENCES
2105 INDEPENDENCE BLVD
KANSAS CITY, MO 64124

PARELMAN, ALLEN G OPH
6724 TROOST AVE #303
KANSAS CITY, MO 64131

PARKER, CRAIG A AN
142 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY MO 64132

PARKER. HUBERT M CD
2929 BALTIMORE SUITE 43
KANSAS CITY. MO 64108

PARKINS, GEORGE K ORS
500 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108

PARSONS, EUGENE O GS
145 STATE LINE KENNETH
STANLEY, KS 66223

PATTISON, CHARLES P GE
540 PENN PARK
2929 BALTIMORE
KANSAS CITY. MO 64108

PAWSAT JOHN E ORS
1210 W 58TH ST
KANSAS CITY. MO 64113

PECORARO, ANTHONY P PD
4400 BROADWAY
KANSAS CITY MO 64111

PEEIE, DON C CD
9012 WEST 102ND ST
SHAWNEE MISSION. KS 66212

PEMBERTON, LOARN B GS
TRUMAN MEDICAL CENTER
2301 HOLMES
KANSAS CITY, MO 64108

PENDERGRASS, KELLY B ON
SUITE 316
6400 PROSPECT
KANSAS CITY, MO 64132

PENNER, STANLEY PD
1010 CARONDELET DR
KANSAS CITY, MO 64114

PERLL, MAURICE F ORS
1010 CARONDELET DR #426
KANSAS CITY, MO 64114

PERLL, RITA D CHP
600 E 22ND STREET
KANSAS CITY, MO 64108

PETERSEN. EUGENE G R
108 HACKBERRY
LEE'S SUMMIT, MO 64063

PETERSON. BONITA J PTH
4550 WARWICK BLVD APT 2
KANSAS CITY, MO 64111

PETERSON, CARL M GS
2701 E 31ST ST
KANSAS CITY, MO 64128

PETERSON, JAY T HEM
4320 WORNALL RD
SUITE 212
KANSAS CITY. MO 64111

PETERSON, WALTER R GS
2701 E 31ST ST
KANSAS CITY, MO 64128

PETRY, EZRA L GP
13740 W 90TH PL APT 1
LENEXA, KS 66215

PFEFFER-HURWITZ, JUDITH CHP
CHILDRENS MERCY HOSPITA
24TH AND GILLHAM RD
KANSAS CITY. MO 64108

PHILLIPS, THOMAS P ORS
610 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111

PICKARD, NICHOLAS S ORS
6210 HIGH DR
SHAWNEE MISSION, KS 66208

PICKERING. LEE I IM
1515 W TRUMAN ROAD
INDEPENDENCE, MO 64050

PIEBENGA, LARRY W OPH
4400 BROADWAY
KANSAS CITY, MO 64111

PIEPERGERDES, LARRY G OPH
4240 BLUE RIDGE BLVD
KANSAS CITY. MO 64133

PINGLETON, SUSAN K IM
UMKC SCHOOL OF MEDICINE
2411 HOLMES
KANSAS CITY. MO 64108

PINKERTON, JOSEPH A JR TS
308 MEDICAL PLAZA
4320 WORNALL RD
KANSAS CITY, MO 64111

PINSKER, OSCAR T OTO
HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY, MO 64131

PIPER DONALD K ORS
1010 CARONDELET DR #426
KANSAS CITY, MO 64114

PIPKIN, GARRETT ORS
R R #2
CLINTON, MO 64735

PITIYANUVATH, TASANAPORN PD
825 EUCLID
KANSAS CITY, MO 64124

PLACE, KENNETH C OPB
130 PENN PARK
2928 MAIN
KANSAS CITY, MO 64108

POLITI, GREGORY B AN
3621 WYNCOTE LANE
SHAWNEE MISSION, KS 66205

POLLAK. ERICH W GS
MENORAH MEDICAL CENTER
4949 ROCKHILL RD
KANSAS CITY MO 64110

POONAWALA, HUSENI E HP
4400 BROADWAY SUITE 202
KANSAS CITY MO 64111

PORTER. LOUIS AN
12 DOCTORS BLDG EAST
751 E 63RD ST
KANSAS CITY, MO 64110

PORIER, MICHAEL J AN
6925 BELINDER
SHAWNEE MISSION. KA 66208

PORTER, WALTER N P
12745 W 76TH ST
LENEXA, KS 66216

POSTMA GEORGE S IM
9150 EAST 41ST TERRACE
KANSAS CITY, MO 64133

POTTER CYNTHIA J IM
CONSORTIUM FOR HEALTH EDUC
2920 MCGEE TRAFFICWAY
KANSAS CITY. MO 63108

POTTS, DONALD A FP
1515 W TRUMAN RD NO 504
INDEPENDENCE, MO 64050
POWELL, ALAN E PD
17221 E 23RD ST
INDEPENDENCE, MO 64057
POWELL, NELSON E PTH
ST LUKES HOSP PATH DEPT
44TH & WORNALL RD
KANSAS CITY, MO 64111
PRATT, CRAIG T IM
305 COUNTRY LANE
LEE'S SUMMIT, MO 64063
PRINTZ, JOS H GS
601 E 63RD ST
KANSAS CITY, MO 64110
PRO, JOHN D P
4320 WORNALL RD
SUITE 712
KANSAS CITY, MO 64111
PROSTIC, EDWARD J ORS
6724 TROOST SUITE 800
KANSAS CITY, MO 64131
PRYOR, HAROLD J PM
RESEARCH HOSPITAL
MEYER AND PROSPECT
KANSAS CITY, MO 64132
PUGH, RICHARD G PD
1612 W TRUMAN RD
INDEPENDENCE, MO 64050
PURTELL, ALLISON E IM
7350 GALLAGHER
APT 260
EDINA, MN 55435
QUER, ERICH A GS
6400 PROSPECT AVE
KANSAS CITY, MO 64132
QUIASON, ARTURO G P
SUITE 109
17221 E. 23RD ST.
INDEPENDENCE, MO 64057
QUIASON, EMMELINE P CHP
109 MED PLAZA BLDG.
17221 E 23RD ST
INDEPENDENCE, MO 64057
RADER, ADA E GP
13414 LOCUST ST
KANSAS CITY, MO 64145
RAICH, ROBT A IM
4320 WORNALL RD RM 440
KANSAS CITY, MO 64111
RAMEY, EHRET O OBG
4320 WORNALL AVE
KANSAS CITY, MO 64111
RAMOS, AMERICO G TS
348 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131
RATNAM, DASARI V P
6448 VERONA RD ,
SHAWNEE MISSION, KS 66208
RAU, JEROLD D
315 NICHOLS RD
SUITE 235
KANSAS CITY, MO 64112
RAUKTIS, ROBERT F R
C/O MCGEOCH
21 ADDINGTON ROAD
BROOKLINE, MA 02146
RAVIS, MARK S FP
407 GREENWAY TERRACE
KANSAS CITY, MO 64113
RAYBOULD, MICHAEL W IM
4000 N GRAND
KANSAS CITY, MO 64116
RECTOR, JOE L TR
710 MEDICAL PLASA
4320 WORNALL RD
KANSAS CITY, MO 64111
REDDIN, JACK L IM
17221 E 23RD ST STE 209
INDEPENDENCE, MO 64057
REDDY, SARVOTHAM K GS
9507 E 63RD ST SUITE 202
RAYTOWN, MO 64133
REED, WM A TS
4320 WORNALL RD
KANSAS CITY, MO 64111
REINHARDT, G R GS
228 RESEARCH MED OFF BL
6400 PROSPECT
KANSAS CITY, MO 64132
REISS, JEANNE E PD
P O BOX 7252
KANSAS CITY, MO 64113
EISTER, DOROTHY D PD
5201 W 84TH
SHAWNEE MISSION, KS 66207
EISTER, PHILIP D GS
SUITE 705
6724 TROOST
KANSAS CITY, MO 64131
EISZ, GEORGE R IM
3118 EATON
KANSAS CITY, KS 66103
EMKUS, JAMES F IM
2610 W 70TH TERRACE
SHAWNEE MISSION, KS 66208

RENGACHARY, DHANALAKSHMI OBG
210 SPRUCE
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4320 WORNALL RD
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RHODES, ANDREW J NS
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1515 W TRUMAN RD
INDEPENDENCE, MO 64050
RICCI, WALTER F P
6724 TROOST
KANSAS CITY, MO 64131
RICHARDS, DEAN D III IM
9150 E 41ST TERRACE
KANSAS CITY, MO 64133
RICHARDSON, MARION W OBG
2526 PROSPECT
KANSAS CITY, MO 64127
RICHERT, ROBT C PTH
504 W 96TH ST
KANSAS CITY, MO 64114
RIEKHOF, PAUL L OBG
SUITE T-307
6420 PROSPECT
KANSAS CITY, MO 64132
RILEY, J P R
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RILLER, LOWELL E ORS
1600 PROFESSIONAL BLDG
1103 GRAND AVE
KANSAS CITY, MO 64106
RIPPEY, JOHN H PTH
WORNALL RD AT 44TH ST
KANSAS CITY, MO 64111
RITTER, WILLIAM S CD
ST. MARY'S HOSP
101 MEMORIAL DR
KANSAS CITY, MO 64108
ROBB, CHRISTINE A FP
13013 FULLER AVE
GRANDVIEW, MO 64030
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DEPT OF RADIOLOGY
ST JOSEPH HOSP
KANSAS CITY, MO 64114
ROBERTS, GROSVENOR G OM
777 N BLUE PKWY
LEE'S SUMMIT, MO 64063
ROBERTS, HAROLD M IM
216 W 99TH TERR
KANSAS CITY, MO 64114
ROBERTS, LAURETTA OBG
1125 GRAHAM RD
FLORISSANT, MO 63031
ROBINETT, WADE V OTO
6700 TROOST STE 616
KANSAS CITY, MO 64131
ROBINSON, ARTHUR W IM
4320 WORNALL RD
KANSAS CITY, MO 64111
ROBINSON, ERNEST K GS
1015 W 58TH TERR
KANSAS CITY, MO 64113
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KANSAS CITY, MO 64108
ROBINSON, WM J P
9931 LEE CIRCLE
LEAWOOD, KS 66206
RODGERS, GEO H U
232 RESEARCH MED OFF BL
6400 PROSPECT
KANSAS CITY, MO 64132
RODGERS, SAMI U OBG
2701 E 31ST ST
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ROFATI, AMIN A AN
9206 ENGLAND
SHAWNEE MISSION, KS 66212
ROGERS, ROBT L OTO
6724 TROOST AVE STE 200
KANSAS CITY, MO 64131
*ROMITO, ANTHONY J GP
5529 TROOST
KANSAS CITY, MO 64110
ROPE, DOUGLAS M IM
373 W 101ST TERR
KANSAS CITY, MO 64114
ROSEN, LARRY A IM
SUITE 500
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
ROSENBERG, ISAC PD
1010 CARONDELET DR
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ROSS, ROBERT M IM
373 W 101ST TERR
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600 ROCKHILL MED. BLDG
6700 TROOST
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ROZEN, JAY I R
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RUBIN, HARVEY P CD
404 HIGHLANDS PROF TOWER
6724 TROOST
KANSAS CITY, MO 64131
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751 E 63RD STE 12
KANSAS CITY, MO 64110
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2316 E MEYER BLVD.
KANSAS CITY, MO 64132
RUES, LAWRENCE A FP
GOPPER FAMILY CARE CENT
6601 ROCKHILL RD
KANSAS CITY, MO 64131
RUFE, JOHN R OPH
102 BROADWAY MED BLDG
4400 BROADWAY
KANSAS CITY, MO 64111
RUSSELL, JAMES L TS
330 PENN PARK BLDG
2929 BALTIMORE
KANSAS CITY, MO 64108
RUSSELL, ROBT K FP
8933 ROSE LANE
KANSAS CITY, MO 64133
RUTHERFORD, BARRY D IM
4320 WORNALL RD
410 MEDICAL PLAZA
KANSAS CITY, MO 64111
RYMER, MARILYN M N
2929 BALTIMORE SUITE 420
KANSAS CITY, MO 64104
SABATES, FELIX N OPH
110 ROCKHILL MED BLDG
6700 TROOST
KANSAS CITY, MO 64131
SAFERSTEIN, A L AN
751 E 63RD ST
KANSAS CITY, MO 64110
SAFLEY, THOS J GS
17221 E 23RD ST
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1706 BRUSH CREEK #303
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9103 E 40TH HWY
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SAMUELSON, EDWARD A FP
706 W 112TH ST
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SANDERS, DONALD C P
411 NICHOLS RD
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SANTORO, CARLOS G GS
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SAUER, GORDON C D
6400 PROSPECT
KANSAS CITY, MO 64132
SCARBOROUGH, BETTY F IM
4223 WEST 69TH TERR
SHAWNEE MISSION, KS 66208
SCARBOROUGH, MARK R IM
4223 WEST 69TH TERR
SHAWNEE MISSION, KS 66208
SCHAERRER, WM C CRS
4545 WORNALL ROAD
APT 212
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SCHARF, DANIEL IM
4949 ROCKHILL RD
MENORAH MEDICAL CTR
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SCHIFFMACHER, JACK E R
4517 W 65TH ST
PRAIRIE VILLAGE, KS 66208
SCHILLIE, GENE A OBG
6400 PROSPECT ST
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6724 TROOST
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SINGLETON, CHARLES M IM
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6550-C TROOST
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STACEY, WALLACE R OBG
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6843 ROE
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2920 MCGEE TRAFFICWAY
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STARKS, GREGORY C OBG
373 WEST 101ST TERR.
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STATLAND, HARRY IM
STATLAND CLINIC
6724 TROOST-SUITE 710
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STATLAND, MORRIS IM
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STIELMACH, WALTER J FP
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STRAUSS, CARL F 8300 TROOST AVE KANSAS CITY, MO 64131	IM
STRIBLING, THOS L 2116 STERLING AVE INDEPENDENCE, MO 64052	OBG
STROMBERG, ERIC D 6400 PROSPECT AVE KANSAS CITY, MO 64132	AN
SUDDARTH, STERLING B 6501 ENGLEWOOD KANSAS CITY, MO 64133	PD
SULIT, ARNULFO P 101 MEMORIAL DR KANSAS CITY, MO 64108	IM
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SWANSON, HOWARD J SUITE 333 RESEARCH OFF BLDG 6400 PROSPECT KANSAS CITY, MO 64132	RHU
WISHER, ROBT C 416 GATEWAY DRIVE JEFFERSON CITY, MO 65101	R
SZABADOS, ERNEST D 17221 E 23RD ST INDEPENDENCE, MO 64057	ORS
ZETO, J SIMON 11822 W 109TH ST SHAWNEE MISSION, KS 66210	IM
SZYMANSKI, DENNIS C CHIEF DIV OF NEUROSURG TRUMAN MED CENTER KANSAS CITY, MO 64108	NS
TALBOTT, LAWRENCE B 12012 FAIRWAY SHAWNEE MISSION, KS 66209	PTH
AMBLYN, CLAIRE L 6801 BELINDER SHAWNEE MISSION, KS 66208	AN
APUZ, JAIME T 4402 CANTERBURY #A INDEPENDENCE, MO 64055	AN
ASKER, CHAS B 11083 BURNTWOOD DR SUN CITY, AZ 85351	AN
EGELER, CHARLES H 4168 FRANCIS KANSAS CITY, KS 66103	IM
ERRY, THOMAS L TRUMAN MEDICAL CENTER LEE'S SUMMIT KANSAS CITY, MO 64139	CD
HALBLUM, HARVEY 6400 PROSPECT STE 216 KANSAS CITY, MO 64132	DR
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HIELE, GEO H 121 W 48TH ST APT 705 KANSAS CITY, MO 64112	CRS
HOMAS, ALEXIS G 3229 EAST 28TH ST KANSAS CITY, MO 64128	IM
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HOMAS, NORVIN E 6800 N ASKEW KANSAS CITY, MO 64119	IM
HOMAS-RICHARDS, JOSE R SUITE 100 6025 PROSPECT AVE KANSAS CITY, MO 64130	ORS
HOMPSON, CHAS L 4320 WORNALL RD SUITE 5 KANSAS CITY, MO 64111	IM
HOMPSON, DAVID E 12 DOCTORS BLDG EAST 751 EAST 63RD ST KANSAS CITY, MO 64110	AN
HOMPSON, MICHAEL F 511 W 97TH KANSAS CITY, MO 64114	IM
IRONE, BENNIE J 6724 TROOST STE 407 KANSAS CITY, MO 64131	TR
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TICE, WAYNE K 3626 BLUE JACKET DRIVE LEE'S SUMMIT, MO 64063	DR
TILLEMA, DAVID A 6306 MORNINGSIDE DR KANSAS CITY, MO 64113	ORS
TIOJANCO, MILAGROS E 11807 WASHINGTON KANSAS CITY, MO 64114	AN
TIOJANCO, REYNALDO R 1010 CARONDELET DR SUITE 421 KANSAS CITY, MO 64114	FP
TITTERINGTON, FRANK W 236 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	IM
TOUBES, DANIEL B 8300 TROOST ST KANSAS CITY, MO 64131	IM
TRIMBLE, DAVID P JR VA HOSPITAL 4801 LINWOOD BLVD KANSAS CITY, MO 64128	IM
TRIMBLE, GEO X 101 MEMORIAL DR KANSAS CITY, MO 64108	IM
TROEH, MELVIN R 1515 W TRUMAN RD. SUITE 301 INDEPENDENCE, MO 64050	IM
TROWBRIDGE, BARNARD C 415 E 63RD ST KANSAS CITY, MO 64110	OTO
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TUOHY, GERALD F 44TH & WORNALL RD KANSAS CITY, MO 64111	AN
TURANO, WM L 6700 RAYTOWN RD RAYTOWN, MO 64133	OBG
TURNER, RONALD M 1515 W TRUMAN RD STE 40 INDEPENDENCE, MO 64050	GS
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TWIN, EDWARD J 2301 HOLMES KANSAS CITY, MO 64108	IM
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UNDERWOOD, DICK H 624 ROCKHILL MED BLDG 6700 TROOST KANSAS CITY, MO 64131	OPH
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VIDALS, VICTOR G 1010 CARONDELET-SUITE 1 KANSAS CITY, MO 64114	GS
VILLANUEVA, ANGELA A ST JOSEPH HOSP 1000 CARONDELET DR KANSAS CITY, MO 64114	PTH
VINCENT, JACK C 2003 W 67TH TERRACE SHAWNEE MISSION, KS 66208	IM
VIRIL, LEONARDO C 4706 BROADWAY KANSAS CITY, MO 64112	GE
VOGEL, ARTHUR P 2215 DRURY LANE SHAWNEE MISSION, KS 66208	AN
VOLK, GEO E SUITE T-307 6420 PROSPECT KANSAS CITY, MO 64132	OBG
VON LINTEL, THOMAS ST LUKE'S HOSP 44TH AND WORNALL RD KANSAS CITY, MO 64111	AN
VOSHALL, DAVID L 1311 DEER RUN TRAIL BLUE SPRINGS, MO 64051	IM
VOTH, HAROLD W 4320 WORNALL RD KANSAS CITY, MO 64111	IM
WADDELL, THOMAS H 710 MEDICAL PLAZA 4320 WORNALL RD KANSAS CITY, MO 64111	DR
WADE, FREDERICK E 1215 W 68TH TERR KANSAS CITY, MO 64113	OPH
WAECKERLE, JOSEPH F 800 W 53RD ST KANSAS CITY, MO 64112	EM
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WAKEFIELD, FRANKLIN H 13065 100TH DR SUN CITY, AZ 85351	GP
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WALL, HARRY C 601 E 63RD ST SUITE 301 KANSAS CITY, MO 64110	A
WALL, LEONARD A 4320 WORNALL RD SUITE 520 KANSAS CITY, MO 64111	OBG
WALLACE, DARRYL L DEPT OF MED ED , ST LUKE 44TH AND WORNALL RD KANSAS CITY, MO 64111	OBG
WALLACE, STEPHEN A CONSORTIUM FOR HEALTH EDUCAT 2920 MCGEE TRAFFICWAY KANSAS CITY, MO 64108	IM
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WEAVER, MICHAEL L 4505 HEADWOOD #1 KANSAS CITY, MO 64111	IM
WEBB, HARRY E 4400 BROADWAY KANSAS CITY, MO 64111	PS
WEIFORD, EDWARD C 4320 WORNALL RD SUITE 328 KANSAS CITY, MO 64111	NS
WEINSTEIN, CHAS L 4440 BROADWAY KANSAS CITY, MO 64111	N

Doctor of Osteopathy.

WEIR, ROBT K OPH
610 BLUE RIDGE TOWER
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
WEISMAN, EDWARD B P
5025 LAMAR APT 1
SHAWNEE MISSION, KS 66202
WELLS, DONALD E IM
MEYER BLVD AT PROSPECT
KANSAS CITY, MO 64132
WELLS, JAMES A AN
1008 VALENTINE RD
KANSAS CITY, MO 64111
WELLS, JOHN H IM
6025 PROSPECT
KANSAS CITY, MO 64130
WELLS, STANLEY D DR
216 RES'RCH MED OFF BLD
6400 PROSPECT
KANSAS CITY, MO 64132
WENNER, HERBERT A PD
CHILDRENS MERCY HOSP
24TH & GILLHAM RD
KANSAS CITY, MO 64108
WEST, HAROLD D ORS
1515 W TRUMAN RD
INDEPENDENCE, MO 64050
WHEELER, CHAS B PH
4320 WORNALL RD
KANSAS CITY, MO 64111
WHITAKER, JAMES H ORS
6400 PROSPECT
KANSAS CITY, MO 64132
WHITE, CHAS H AN
6518 OVERHILL RD
SHAWNEE MISSION, KS 66208
WHITE, JAMES S U
751 E 63RD ST
KANSAS CITY, MO 64110
WHITE, STOUGHTON F U
4320 WORNALL RD
KANSAS CITY, MO 64111
WHITE, WM E NM
6400 PROSPECT
KANSAS CITY, MO 64132
WHITMAN, DANIEL S IM
UMKC SCHOOL OF MEDICINE
2411 HOLMES
KANSAS CITY, MO 64108
WHITMAN, DOYLE C OM
6836 CHEROKEE LANE
SHAWNEE MISSION, KS 66208
WHITMORE, J S R
2929 BALTIMORE
KANSAS CITY MO 64108
WHITTAKER, CHAS K NS
4440 BROADWAY
KANSAS CITY MO 64111
WIEN, IRVING A GS
806 PROFESSIONAL BLDG
1103 GRAND AVENUE
KANSAS CITY, MO 64106
WIENTZEN, ARTHUR S IM
373 W 101ST TERRACE
KANSAS CITY, MO 64114
WILBER, ROBT D GP
4320 WORNALL RD STE 208
KANSAS CITY, MO 64111
WILHELM, WARREN F IM
6400 PROSPECT ST SUITE
KANSAS CITY, MO 64132
WILKINS, MICHAEL S IM
825 EUCLID
KANSAS CITY, MO 64124
WILKINSON, CHAS B P
600 E 22ND ST
KANSAS CITY, MO 64108
WILKINSON EVERETT A GS
228 RESEARCH MED OFF BL
6400 PROSPECT
KANSAS CITY, MO 64132
WILLIAMS, FENTON A R
1734 E 63RD ST
KANSAS CITY, MO 64110
WILLIAMS GARY D IM
7211 CONSER
SHAWNEE MISSION, KS 66204
WILLIAMS, GEO F FP
10928 HILLCREST RD
KANSAS CITY, MO 64134
WILLIAMS, JOS C OBG
6400 PROSPECT AVE
KANSAS CITY, MO 64132
WILLIAMS, KATHLEEN M PD
373 W 101ST TERR
KANSAS CITY, MO 64114
WILLIAMS ROLAND D OTO
1010 CARONDELET DR
SUITE 224
KANSAS CITY, MO 64114
WILLIAMS STARKS I PD
1734 E 63RD ST
SUITE 205
KANSAS CITY, MO 64110
WILLIAMS THOMAS A P
VA HOSPITAL
4801 LINWOOD BLVD
KANSAS CITY, MO 64128

WILLIS, RUDOLPH E IM
P O BOX 11312
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WILLOUGHBY, JAMES W A
1125 GRAND AVE
KANSAS CITY, MO 64106
WILLOUGHBY, JEAN B IM
1019 W 69TH TERR
KANSAS CITY, MO 64113
WILSON, CLIFFORD C CRS
1129 LEISURE LANE #8
WALNUT CREEK, CA 94595
WILSON, ROGER W ORS
500 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108
WINER, HERBERT J OBG
6724 TROOST STE 210
KANSAS CITY, MO 64131
WINER, NATHANIEL IM
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TRUMAN MEDICAL CENTE
KANSAS CITY, MO 64108
WINKELMAN, ESTHER B GP
6400 PROSPECT SUITE 224
KANSAS CITY, MO 64132
WINSTON, BERNARD H D
601 E 63RD ST
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WISE, GEO W PD
CHILDREN'S MERCY HOSPITAL
24TH & GILLHAM
KANSAS CITY, MO 64108
WISE, MORRIS F U
6724 TROOST SUITE
KANSAS CITY, MO 64131
WOLDESEMAIT, ASSEFA IM
11713 W 49TH TERR
SHAWNEE MISSION KS 66203
WOLF, JACK W IM
6724 TROOST AVE STE 500
KANSAS CITY, MO 64131
WOOD, DAVID G DR
340 PENN PARK
2929 BALTIMORE
KANSAS CITY, MO 64108
WOODS, HAROLD V GP
917 MC GEE
KANSAS CITY, MO 64106
WOODS, SAML D GS
4320 WORNALL RD RM 216
KANSAS CITY, MO 64111
WOODS, WALTON C OM
TWA OVERHAUL BASE
P O BOX 20126
KANSAS CITY, MO 64195
WOODWARD, WM W IM
4240 BLUE RIDGE BLVD
KANSAS CITY, MO 64133
WOOL, NORMAN L GS
6724 TROOST AVE
SUITE 410
KANSAS CITY, MO 64131
WORTMANN, ROBT F OBG
2819 W 66TH TERR
SHAWNEE MISSION, KS 66208
WRIGHT, R F IM
6700 TROOST ST-STE 40
KANSAS CITY, MO 64131
WU, SHUH-MIN IM
6724 TROOST AVE STE 500
KANSAS CITY, MO 64131
WU, WM Q NS
6700 TROOST
KANSAS CITY MO 64131
WURSTER, JERRY B OPH
4320 WORNALL RD
KANSAS CITY, MO 64111
WURSTER, W J OTO
1010 CARONDELET DR
SUITE 224
KANSAS CITY, MO 64114
YOON, JAE W R
DEPT OF RAD
2301 HOLMES
KANSAS CITY, MO 64108
YOULL, DONALD V A
1010 CARONDELET DR
SUITE 220
KANSAS CITY, MO 64114
YOUMANS, RONALD A N
415 E 63RD ST
KANSAS CITY, MO 64110
YOUNG, JAMES E P
4320 WORNALL RD STE 716
KANSAS CITY, MO 64111
YOUNG JESSE W GP
1401 SOUTHWEST BLVD
KANSAS CITY, KS 66103
YOUNGBLOOD, JAMES P OBG
1010 CARONDELET DR
SUITE 328
KANSAS CITY, MO 64114
YU, MARIO K N
SUITE 117
4706 BROADWAY
KANSAS CITY MO 64112
ZAHONY, IVAN AN
8255 W 172ND TERRACE
STILWELL, KS 66085

ZAHORSKY, CARROLL L PS
633 EAST 63RD ST
KANSAS CITY, MO 64110
ZELLER, DARRELL E OBG
316 CARONDELET MED. BLDG
1010 CARONDELET DR
KANSAS CITY, MO 64114
ZERR, CHARLES H IM
1100 WEST TRUMAN RD
INDEPENDENCE, MO 64050
ZIEMIANSKI, MATTHEW C OPH
110 ROCKHILL MEDICAL BL
6700 TROOST
KANSAS CITY, MO 64131
ZINN, MARCIA V AN
TRUMAN MED CTR DEPT SURG
2301 HOLMES
KANSAS CITY, MO 64108
ZOLLER, DAVID D PTH
101 MEMORIAL DR
KANSAS CITY, MO 64108
ZUKAITIS, MARK G AN
142 RESEARCH MED OFF BLDG
6400 PROSPECT
KANSAS CITY, MO 64132
ZWERENZ, BRUNO H P
1734 EAST 63RD STREET
KANSAS CITY, MO 64110

102—JASPER

ADAMS, ROBT B IM
3103 MC CLELLAND
JOPLIN, MO 64801
AL-SHATHIR, SAAD M PM
BRADY BUILDING
ST JOHNS MED CTR
JOPLIN, MO 64801
ALLEN, DAVID O U
3105 MC CLELLAND BLVD
JOPLIN, MO 64801
ARNOLD, JAMES T DR
P O BOX 2337
JOPLIN, MO 64801
BENTLAGE, CHAS H GS
1513 W 32ND ST-HILLSIDE
JOPLIN, MO 64801
BHEND, DAVID P P
3115 MC CLELLAND BLVD
JOPLIN, MO 64801
BIRD, WM J U
1031 MCINTOSH CIRCLE DR.
JOPLIN, MO 64801
BIRSNER, FRANK H GP
RT 1 BOX 1106
JOPLIN, MO 64801
BLADOW, TERRENCE C PD
3107 MC CLELLAND BLVD
JOPLIN, MO 64801
BOPP, JON R OBG
3115 MC CLELLAND BLVD
JOPLIN, MO 64801
BORELLO, DAN J OBG
3115 MCCLELLAND BLVD
JOPLIN, MO 64801
BRANDON, FREDERICK M R
P O BOX 2337
JOPLIN, MO 64801
BROWNING, RONALD A IM
3402 MCINTOSH CIRCLE DR
JOPLIN, MO 64801
BURCH, JOHN E OBG
P O BOX 2247
JOPLIN, MO 64801
BURLEIGH, BRUCE W OR
2700 MC CLELLAND BLVD
JOPLIN, MO 64801
CARNES, VICTOR M PTH
P O BOX B MAIN OFFICE
JOPLIN, MO 64801
CHASE, NED B ORS
2700 MC CLELLAND BLVD
JOPLIN, MO 64801
CHELLAPPA, DANUKODI IM
2727 MC CLELLAND BLVD
JOPLIN, MO 64801
CHESNEY, GEO W AN
2604 PICHER ST
JOPLIN, MO 64801
CLARK, FRANK I PD
3107 MC CLELLAND BLVD
JOPLIN, MO 64801
COHLE, RICHARD R IM
301 E CHESTNUT ST
CARTHAGE, MO 64836
CONDE, GARY A FP
2601 CUNNINGHAM, LOWER LEVEL
JOPLIN, MO 64801
CRAIG, IRWIN T OBG
2039 GULF OF MEXICO DR
LONGBOAT KEY, FL 33548
CRISPELL, LAWRENCE S OTO
3302 MCINTOSH CIRCLE DR
JOPLIN, MO 64801
DANDRIDGE, WALTER C GS
2601 CUNNINGHAM
JOPLIN, MO 64801
DAVIS, CHAS S D
2817 MCCLELLAND BLVD
SUITE 214
JOPLIN, MO 64801

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E TAR, BURLEIGH E	MEDICAL ARTS BLDG ROOM 208 JOPLIN, MO 64801	GS
IXON, HERBERT K	3201 MCINTOSH CIRCLE DR JOPLIN, MO 64801	OPH
LISCU, JULIETTE M	3107 MC CLELLAND JOPLIN, MO 64801	PD
SCH, JOHN G JR	2700 MCCLELLAND BLVD JOPLIN, MO 64801	ORS
STHER, JOHN R	FERGUSONS LAB BOX B JOPLIN, MO 64801	PTH
ERGUSON, ROBT M	510 E 32ND JOPLIN, MO 64801	GP
RITSCH, ANDREW J	2525 JACKSON ST JOPLIN, MO 64801	IM
ROGGE, JIMMY D	3105 MC CELLAND BLVD JOPLIN, MO 64801	U
ARDINER, JOS A	2700 MCCLELLAND BLVD SUITE 109 JOPLIN, MO 64801	OBG
ASTON, SAML L	2720 OHIO JOPLIN, MO 64801	R
OFF, JOHN E	2601 CUNNINGHAM JOPLIN, MO 64801	FP
REBE, T K	3209 MC CLELLAND JOPLIN, MO 64801	OBG
RIM, EDWARD M	3105 MC CLELLAND BLVD JOPLIN, MO 64801	U
RUBB, PAUL H	2509 JACKSON JOPLIN, MO 64801	GP
ABERMANN, JAMES H	1324 FAIRMONT JOPLIN, MO 64801	PTH
ALL, MARVIN F	116 CONNER JOPLIN, MO 64801	R
ALLABA, MOHEB A	2401 JACKSON JOPLIN, MO 64801	GS
ILTON, PAUL E	1612 MURPHY BLVD JOPLIN, MO 64801	D
OLTZMAN, SAML	3001 MARTIN L KING DR A CHICAGO, IL 60616	D
RST, WILFRED W	3115 MC CLELLAND JOPLIN, MO 64801	ORS
ANS, VIRGIL E	660 JACCARD PL JOPLIN, MO 64801	GS
EHLER, JOHN W	3103 MC CLELLAND BLVD JOPLIN, MO 64801	IM
HN, JOHN R	321 FRISCO BLDG JOPLIN, MO 64801	GP
NG, CHESTER I	1031 B MC INTOSH CIRCLE DR JOPLIN, MO 64801	IM
NGENECKER, JOE L	2503 JACKSON AVE JOPLIN, MO 64801	FP
C LAUGHLIN, JAMES C	3103 MC CLELLAND BLVD JOPLIN, MO 64801	IM
JZOUB, HISHAM S	2902 MC CLELLAND JOPLIN, MO 64801	NS
NALO, GIL B	510 S GARRISON CARTHAGE, MO 64836	GS
NGALAT, NARAYANAN K	2817 MCCLELLAND BLVD JOPLIN, MO 64801	NEP
RTIN, CLARENCE A	1513 W 32ND JOPLIN, MO 64801	GS
GONIGLE, JAMES P	2730 CUNNINGHAM JOPLIN, MO 64001	OPH
GONIGLE, MICHAEL M	2620 CUNNINGHAM JOPLIN, MO 64801	GP
PIKE, LLOYD H	2217 BROWNELL ST JOPLIN, MO 64801	GS
REDITH, WILLIAM R JR	2817 MCCLELLAND JOPLIN, MO 64801	OPH
ELLER, ADOLPH R	2700 MC CLELLAND BLVD JOPLIN, MO 64801	ORS
PATTERSON, DONALD R	3302 MCINTOSH CIRCLE JOPLIN, MO 64801	FP
PATTERSON, GROVER S	510 S MAIN ST CARTHAGE, MO 64836	FP
PEARMAN, CARL C	2700 MC CLELLAND BLVD SUITE 204 BUILDING B JOPLIN, MO 64801	GYN
PENCE, FRANCIS W	2817 MC CLELLAND BLVD JOPLIN, MO 64801	FP
POTTENGER, LOWELL K	P O. BOX 2337 JOPLIN, MO 64801	DR
POWELL, ROBT G	R.R 3, BOX 87 GALENA, KS 66739	IM
PRYOR, IRA J	2902 MCCLELLAND BLVD SUITE 5 JOPLIN, MO 64801	AN
REDDY, VODUR C	1031 MC INTOSH CIRCLE DR. JOPLIN, MO 64801	U
ROBERTS, HOWARD H	3101 MC CLELLAND JOPLIN, MO 64801	OBG
ROYCE, JAMES J	16TH MINER STS SARCOXIE, MO 64862	GP
SABAPATHY, SHANMUGASUNDARA	2817 MCCLELLAND #225 JOPLIN, MO 64801	CD
SANEMAN, PAUL P	2700 MC CLELLAND BLVD JOPLIN, MO 64801	OBG
SCHMIDT, HERBERT J	RT 2, BOX 197 BRIARCLIFF JOPLIN, MO 64801	OBG
SCHOEBERL, CLETUS B	305 MED ARTS BLDG JOPLIN, MO 64801	IM
SCHULTE, GREGORY A	2515 E 12TH ST JOPLIN, MO 64801	GP
SCORSE, SIDNEY W	R R I-BOX 236 NEOSHO, MO 64850	EM
SHANAHAN, MARY P	P O BOX 2125 JOPLIN, MO 64801	OBG
SIMMONS, JESS S	2700 MC CLELLAND BLVD JOPLIN, MO 64801	D
SINGLETON, MARVIN A	114 W 32ND ST JOPLIN, MO 64801	OTO
SMITH, ROLAND T	207 MEDICAL ARTS BLDG JOPLIN, MO 64801	GS
SMITH, W R	315 EUCLID CARTHAGE, MO 64836	GS
STIDMAN, FREDERICK C	3107 MC CLELLAND BLVD JOPLIN, MO 64801	PD
STRAUB, DAVID L	2902 MCCLELLAND BLVD SUITE 2 JOPLIN, MO 64801	PD
TURFBOER, ROBERT	2701 WEST 32ND ST JOPLIN, MO 64801	P
DURITTO, LOUIS A	1515 HAZEL AVE CARTHAGE, MO 64836	GS
VINYARD, JACK L	2329 JACKSON JOPLIN, MO 64801	GP
WALKER, PAUL W	1022 N SERGEANT JOPLIN, MO 64801	U
WHITTEN, M F	616 W CENTENNIAL ST CARTHAGE, MO 64836	GP
WIEMAN, HARRY K	206 MED ARTS BLDG JOPLIN, MO 64801	IM
WILCOX, RUTH E	614 JOPLIN ST JOPLIN, MO 64801	PD
WILLCOXON, ROBT L	2601 CUNNINGHAM JOPLIN, MO 64801	GS
WILLIAMS, RICHARD F	211 E CHESTNUT CARTHAGE, MO 64836	FP
WILSON, ALICE H	RTE 1 BOX 163 NEOSHO, MO 64850	FP
WOOD, GEO H	1515 HAZEL AVE CARTHAGE, MO 64836	FP
YOUNG, CALVIN C	3115 MC CLELLAND JOPLIN, MO 64801	R

106—JEFFERSON

ALBANO, BENJ I	P O BOX 380 CRYSTAL CITY, MO 63019	GS
ALBANO, MARIA C	124 MISSISSIPPI AVE CRYSTAL CITY, MO 63019	GP
ALLBEE, ROGER H	121 B MISSIPPI CRYSTAL CITY, MO 63019	GS
BAI, SAMUEL S	107 WALNUT ST FESTUS, MO 63028	CD
BELEN, MARIETTA	COUNTY-WIDE PEDIATRICS, INC 103 NORTH MILL ST FESTUS, MO 63028	PD
BLANK, MICHAEL K	111 EASTON ST DE SOTO, MO 63020	GS
BONIFACIO, ANDRES S	121 MISSISSIPPI CRYSTAL CITY, MO 63019	OBG
CARRON, JOSEPH	1606 HOBELMANN ARNOLD, MO 63010	FP
CHARLES, NALLATHAMBI	MEDICAL VILLAGE FESTUS, MO 63028	FP
CHARLES, PADMINI	MEDICAL VILLAGE RT #4 FESTUS, MO 63028	GP
CONANT, JAMES F	111 EASTON ST DE SOTO, MO 63020	GP
DATTA, NARENDAR K	130 MAIN ST , FESTUS, MO 63628	OBG
DELES, VICENTE D	MEDICAL VILLAGE CRYSTAL CITY, MO 63019	GS
DONNELL, HAROLD E	700 N MAIN DE SOTO, MO 63020	GP
DONNELL, ROBT H	112 MISSISSIPPI CRYSTAL CITY, MO 63019	DR
DONNELL, THOS A	P O BOX 592 HILLSBORO, MO 63050	GP
EDWARDS, WALDO B	135 W ADAMS KIRKWOOD, MO 63122	OBG
JUDGE, WALTER T	1004 TAYLOR AVE CRYSTAL CITY, MO 63019	GS
KIM, TAE S	INDUSTRIAL DRIVE FESTUS, MO 63018	GS
LEE, JUNG H	P O BOX 309 CRYSTAL CITY, MO 63019	CD
PARK, DUK J	105 WALNUT ST FESTUS, MO 63028	IM
PARK, KUN H	P. O BOX 667 MED VILLAGE SUITE 106 FESTUS, MO 63028	OBG
REED, MARTHA A	JEFFERSON SQUARE SHOPPI DE SOTO, MO 63020	IM
RUTLEDGE, JOHN F	MANNS BLDG FESTUS, MO 63028	GP
VERZOLA, EUFEMIO G	11 MAIN ST HERCULANEUM, MO 63048	GS
YOSKIT, HARRY	C/O HERMAN GUZOFEKY 90-50 UNION TURNPIKE RIDGEWOOD, NY 11385	D

110—JOHNSON

CUOPER, ROBT L	602 N MC GUIRE WARRENSBURG, MO 64093	GP
COOPER, ROBT L	P O BOX 458 WARRENSBURG, MO 64093	OBG
FOLKNER, ALBERT L	222 E CULTON ST WARRENSBURG, MO 64093	GP
GONZALEZ, MARIO G	JOHNSON CO MEM HOSP WARRENSBURG, MO 64093	R
GROVE, GULPH W	210 E MC PHERSON KNOB NOSTER, MO 65336	GP
HANNA, HUGH A	ROUTE 7 SOUTH MITCHELL ST WARRENSBURG, MO 64093	GS
JOHNSON, CHAS S	502 HURRICANE HILL WARRENSBURG, MO 64093	IM

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122 E MARKET ST
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220 E CULTON
WARRENSBURG, MO 64093
NGO, QUAT T FP
JOHNSON COUNTY MEM HOSP
WARRENSBURG, MO 64093
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REYNOLDS, M W OPH
P O BOX 86
WARRENSBURG, MO 64093
SICAT, ALFONSO V ORS
510 E GAY
WARRENSBURG, MO 64093

115—LACLEDE

BEALER, LOUIS A GS
732 S MADISON
LEBANON, MO 65536
CARRINGTON, HOWARD W GP
P. O BOX 1142
LEBANON, MO 65536
CASTER, PHILIP W GP
P. O. BOX 1142
LEBANON, MO 65536
*COURTER, GARY M GP
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LEBANON, MO 65536
GAPASIN, ERNESTO M GS
583 S WASHINGTON
LEBANON, MO 65536
HITE, DENNIS E GP
P O BOX 1142
LEBANON, MO 65536
SHERMAN, PHILIP A US
P O BOX 1142
LEBANON, MO 65536

118—LAFAYETTE-RAY

BALDWIN, THEODORE R GP
1236 JESSE JAMES RD
EXCELSIOR SPRIN, MO 64024
BEST, ROBT B EM
4300 W 111TH TER
SHAWNEE MISSION, KS 66211
BOYDSTON, CATHERINE O GP
107 S 2ND ST
ODESSA, MO 64076
BOYDSTON, WYATT W GP
107 E 2ND ST
ODESSA, MO 64076
BRADY, HUGH S GP
RR 1
CONCORDIA, MO 64020
COOK, THOS B GP
802 E MAIN ST
RICHMOND, MO 64085
COPE, JOS S GS
1110 1/2 MAIN STREET
LEXINGTON, MO 64067
CRAYTON, BILLY G FP
BOX 41
WAVERLY, MO 64096
CROZIER, FRANKLIN A FP
201 S COLLEGE AVE
RICHMOND CLINIC
RICHMOND, MO 64085
DAVAULT, GEO K GP
MEDICAL CENTER
RICHMOND, MO 64085
DE MOTTE, JEANNE M FP
HWY 13 SOUTH
P O BOX 68
RICHMOND, MO 64085
GEORGE, THEODORE GS
P O BOX 512
RICHMOND, MO 64085
GILANI, ABDOLLAH GS
220 HWY 13 S
RICHMOND, MO 64085
KELLING, JORDAN A GP
KELLING CLINIC-HOSP
WAVERLY, MO 64096
KUANGPARICHAT, MANOCH IM
1205 N JESSE JAMES RD
EXCELSIOR SPGS , MO 64024
LA HUE, WILLIAM C GS
1901 SLEEPY HOLLOW DR
LEXINGTON, MO 64067
LAI, HSIEN-ELL GP
1712 MAIN
HIGGINSVILLE, MO 64037
MC FADDEN, GENE A GP
KELLING CLINIC
WAVERLY, MO 64096
MEYER, JERRY L FP
834 MAIN ST
CONCORDIA, MO 64020

NGUYEN, LAN K GS
KELLING CLINIC INC
P O. BOX 169
WAVERLY, MO 64096
PAVLU, ROBT R GP
KELLING CLINIC HOSP
WAVERLY, MO 64096
RILEY, CHAS T FP
220 HIGHWAY 13 SOUTH
RICHMOND, MO 64085
VAJARANANT, MANIT OBG
1028 MAIN
LEXINGTON, MO 64067
WARD, JOE W GP
1028 MAIN ST
LEXINGTON, MO 64067
WILLIAMS, JOHN W OM
801 W 15TH
OAK GROVE, MO 64075

120—LAKE OF THE OZARKS (Camden-Miller-Morgan-Counties)

BUEHLER, CARL T GP
6 S MAPLE ST
ELDON, MO 65026
FOTOPOULOS, CHRIS K GS
P O BOX 128
OSAGE BEACH, MO 65065
GARRISON, THEODORE W GP
P O BOX 356
CAMDENTON, MO 65020
GUNN, JACK GP
P O BOX 160
VERSAILLES, MO 65084
HALL, CHAS R GP
P O BOX 160
VERSAILLES, MO 65084
HAYDEN, MELVIN R GP
P O. BOX 789
CAMDENTON, MO 65020
HOLLEY, DONALD B GP
P O BOX 789
CAMDENTON, MO 65020
KAUFFMAN, RUTH GP
P O BOX 160
VERSAILLES, MO 65084
LYLE, ROBT R GP
P O BOX 160
VERSAILLES, MO 65084
MOSELEY, OTIS O GP
BOX 248
OSAGE BEACH, MO 65065
SHELTON, EDWARD O GP
104 W NEWTON
ELDON, MO 65026
SMELTZER, FREDERICK M R
LAKE OF THE OZARKS HOSP
OSAGE BEACH, MO 65065
THARP, JUDITH L OS
RT 1, BOX 271-M
CAMDENTON, MO 65020
TIETJEN, FRED O ORS
P O BOX 187
OSAGE BEACH, MO 65065
VANDIVER, VIRGIL D AN
P O BOX 248
OSAGE BEACH, MO 65065
WASHBURN, JOHN L GP
BOX 109 BANK BLDG
VERSAILLES, MO 65084

122—LEWIS-CLARK-SCOTLAND

CHAYASIRISOBHON, PINYO GP
3116 LEOTA
FRASER, MI 48026
DAVIS, LANDIS Y.
5th & CLARK GP
CANTON, MO 63435
MOITRA, SHOMENDRA K.
SOMERSET COMMUNITY HOSP. GS
225 S. CENTER AVE.
SOMERSET, PA 15501

130—MARION-RALLS-SHELBY

AVILA, ESTRELLA Z IM
110 MAGNOLIA AVE
HANNIBAL, MO 63401
AVILA, PATRICIO C GS
110 MAGNOLIA AVE
HANNIBAL, MO 63401
BACH, LYSLE M R
4209 W FLY RD
HANNIBAL, MO 63401
BELL, ROBT M P
P O BOX 551
HANNIBAL, MO 63401
BORROMEO, CARLOS J PD
603 COUNTRY CLUB DR
HANNIBAL, MO 63401
BUREN, ROBT W GS
2910 ST MARYS AVE
HANNIBAL, MO 63401
BUKSTEIN, MICHAEL J GS
711 GRAND AVE
HANNIBAL, MO 63401
BURNS, FRANCIS R OBG
TOWER PLAZA
CLINIC RD
HANNIBAL, MO 63401
BURTON, DALE F GS
P O BOX 311
HANNIBAL, MO 63401
CLISHAM, JOHN F U
P. O. BOX 127
HANNIBAL, MO 63401
COMER, JULIAN R DR
RT. 3, BOX 147
NEW LONDON, MO 63459
FLORENDO, FEDERICO N PTH
LEVERING HOSP
HANNIBAL, MO 63401
FLORENDO, PURIFICACION T OBG
TOWER PLAZA-CLINIC RD
HANNIBAL, MO 63401
FOREMAN, PHILLIP B . GS
P O BOX 311
HANNIBAL, MO 63401
GREENE, HARRY L CD
109 B VIRGINIA
HANNIBAL, MO 63401
HA, JUNE Y IM
33 SATELLITE DR
HANNIBAL, MO 63401
HALL, STANLEY G PTH
SYCAMORE SPRING
RFD #2
HANNIBAL, MO 63401
HAMLIN, WYETH IM
P. O BOX 311
HANNIBAL, MO 63401
*HEVEL, ROBERT W FP
197 GEMINI
HANNIBAL, MO 63401
HINDS, ROY D AN
RT #3
HANNIBAL, MO 63401
JAYANANDAIAH, HIREMATHADA P
4 BRIARWOOD
HANNIBAL, MO 63401
KRUSE, CARL R FP
706 S DICKERSON ST
PALMYRA, MO 63461
KWON, YONGSOO GS
2910 ST MARYS
HANNIBAL, MO 63401
LICHTY, CHAS A GP
SHELBINA, MO 63468
MANN, JAMES K PD
4074 HILLSIDE DRIVE
HANNIBAL, MO 63401
MURPHY, BERNARD L ORS
2000 CRESCENT DR
HANNIBAL, MO 63401
PALMER, RUSSELL H GP
706 S DICKERSON ST
PALMYRA, MO 63461
PLOWMAN, EDWARD M OPH
B AND L BLDG
HANNIBAL, MO 63401
RAPP, EARL L GP
BOX 311
HANNIBAL, MO 63401
ROLLER, JAMES A D
2319 BROADWAY
HANNIBAL, MO 63401
ROLLER, MERRILL J GP
2910 ST MARY'S AVE
HANNIBAL, MO 63401
STEELE, JAMES C OBG
2802 MARSH AVE
HANNIBAL, MO 63401
STRANGE, LESLIE C OTO
P O BOX 311
HANNIBAL, MO 63401
WALTERSCHEID, JOHN H GP
1209 BROADWAY
HANNIBAL, MO 63401
WELL, JULIUS W GP
111 E OLIVE ST
PALMYRA, MO 63461

182—MID-MISSOURI (Phelps-Crawford-Dent-Pulaski-Maries Counties)

BARTLETT, HUGH C GI
1100 W 10TH ST
ROLLA, MO 65401
BAUMANN, ALBERT R FP
STEELVILLE, MO 65565
BHARATH, SOMASUNDARAM I
ARMY HOSP
BOX 1352
FT LEONARD WOOD, MO 65473
BHATTI, DEO K G
404 W ROLLA ST
SALEM, MO 65560
BUTTS, JAMES D GP
100 ADRIAN
ROLLA, MO 65401
COLLINS, JACK R AN
1566 MASON VALLEY RD
ST LOUIS, MO 63131

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* Doctor of Osteopathy.

CONE, WM D	1335 BROADWAY WEST PLAINS, MO 65775	P
CRAIG, HERBERT W	RT. 3, BOX 180 ROLLA, MO 65401	ORS
DRAKE, AVERY A	4357 N 106TH AVE PHOENIX, AZ 85039	OPH
DRAPER, BERNARD L	1100 W 10TH ST ROLLA, MO 65401	OBG
ELDERS, FRANK A	RT 1 BOX 69A CUBA, MO 65453	GP
FEIND, EARL E	BOX B ROLLA, MO 65401	GP
FORTIN, JORGE A	1100 W TENTH ST. ROLLA, MO 65401	OBG
GRANNEMANN, H N	1000 W 10TH ST ROLLA, MO 65401	PTH
AMMLER, CHRISTIANA V	PHELPS COUNTY HOSP ROLLA, MO 65401	GP
EILBRUNN, ILSE	1203B FORUM ROLLA, MO 65401	OS
OOSHMAND, AHMAD	MEDDAC#1187 FT LEONARD WOOD, MO 65473	N
HAN, MOHAMMED V H	9939 AFFTON PLACE ST LOUIS, MO 63123	IM
INDE, JOHN W	1100 W TENTH ST ROLLA, MO 65401	OPH
ARTI, LARRY B	1100 W 10TH ST ROLLA, MO 65401	ORS
ATSUDA, GORDON T	1100 W. 10TH ST. ROLLA, MO 65401	U
ITCHELL, ROY E	RT 5, BOX 36 SALEM, MO 65560	GP
YERS, JAMES M	1016 W 12TH ST ROLLA, MO 65401	GP
ASKON, SETH	3RD JACKSON SALEM, MO 65560	IM
ENDELL, PAUL W	1915 SHAMROCK AVE JOHN KNOX VILLAGE LEE'S SUMMIT, MO 64063	GS
OJANASOMBOON, PICHAT	1100 W 10TH ST ROLLA, MO 65401	OPH
USSELL, BARBARA E	11TH AND BISHOP ROLLA, MO 65401	PD
AUNDERS, CAROL S	C/O RUSSELL YOUNG CLINI 11TH AND BISHOP ST ROLLA, MO 65401	PD
LAHOREK, GEORGE J	GEN LEONARD WOOD ARMY H PATHOLOGY DEPT FORT LEONARD WO, MO 65473	PTH
MITH, TED P	S&S ACRES ROUTE 2 ROLLA, MO 65401	FP
TRICKER, FAMIL A	10TH & BISHOP ROLLA, MO 65401	GS
ANG, TEODORO	BOX 437 SALEM, MO 65560	GS
HEOBALD, STERLING	BOX 7116 A ST LOUIS, MO 63177	GP
HITE, EUGENE F	1100 W TENTH ST ROLLA, MO 65401	OBG
IENCH, DELANE F	1000 WEST 10TH ST ROLLA, MO 65401	PTH
OUNG, ROBT B	700 W 11TH ST ROLLA, MO 65401	FP

38—MINERAL AREA
St. Francois-Iron-Madison-ashington-Reynolds-Bollinger ounties)

PLEBERRY, CHAS H	43 ST JOE ST. FLAT RIVER, MO 63601	P
NTINGANAN, VICTOR D	703 W MAIN STREET FREDERICKTOWN, MO 63645	GS
ANCELADA, JUAN V	NORTH STREET FARMINGTON, MO 63640	OBG
CARLETON, CHAS E	MED ARTS CLINIC FARMINGTON, MO 63640	GP
CHASTAIN, CHAS W	FAMILY HEALTH CARE 815 E MAIN ST FLAT RIVER, MO 63601	GP
DAVIS, THOMAS N	STATE HOSPITAL FARMINGTON, MO 63640	P
DENNIS, WM P	1000 N MAIN ST DESLOGE, MO 63601	GP
DENT, GEORGE W	512 NORTH ST FARMINGTON, MO 63640	OBG
DETTMER, ROBT F	128 W RUSSELL IRONTON, MO 63650	GP
DIERKER, HARRY D	301 W LIBERTY ST FARMINGTON, MO 63640	GP
DURST, EDWARD F	301 W LIBERTY FARMINGTON, MO 63640	GS
FARMER, NORMA P	709 WARREN ST FARMINGTON, MO 63640	P
GEORGE, P A	703 WEST MAIN FREDERICKTOWN, MO 63645	IM
GRAY, WALTER C	301 W LIBERTY FARMINGTON, MO 63640	GP
HARDY, STANTON L	1000 N MAIN ST DESLOGE, MO 63601	GP
HARTMANN, THOMAS G	301 W LIBERTY FARMINGTON, MO 63640	FP
HOCTOR, EMMETT F	STATE HOSP NO 4 FARMINGTON, MO 63640	P
HUCKSTEP, ROBT A	301 W LIBERTY ST FARMINGTON, MO 63640	IM
KARRAKER, ALVAN G	301 W LIBERTY ST MEDICAL ARTS CLINIC FARMINGTON, MO 63640	GP
KIM, LONGIUS H	AUSTIN PLAZA POTOSI, MO 63664	GS
MANUSMARE, USHA P	FARMINGTON STATE HOSPITAL FARMINGTON, MO 63640	GP
MENNE, MARVIN C	109 N MAIN ST IRONTON, MO 63650	GP
MULLEN, JACK	30 N ALLEN ST BONNE TERRE, MO 63628	IM
NEUKOM, GEO B	1528 NORTH 7TH ST TERRE HAUTE, IN 47807	P
NEWCOMB, ARTHUR D	P O BOX 218 103 PUBLIC SQUARE STOCKTON, MO 65785	US
OLIVER, GEO A	MEDICAL ARTS CLINIC FARMINGTON, MO 63640	GS
PARKER, GARY J	301 W LIBERTY ST FARMINGTON, MO 63640	IM
PTCHARDO, JAVIER A	FARMINGTON STATE HOSP-R FARMINGTON, MO 63640	P
STMPELO, RUSTICO V	AUSTIN PLAZA POTOSI, MO 63664	GS
STEELE, GEORGE M JR.	P O BOX 486 VAN BUREN, MO 63965	GP
TAVEE, ANOTHAI	126 W RUSSELL IRONTON, MO 63650	IM
TAYLOR, VAN W	54 CHURCH ST BONNE TERRE, MO 63628	GS
TUTTLE, JAY F	421 HICKORY GLEN LANE ST LOUIS, MO 63141	P
WATKINS, GEO L	BOX 1745 RANCHO SANTA FE, CA 92067	GS

142—MONITEAU

FULKS, RICHARD B	BOX 410 CALIFORNIA, MO 65018	GP
GALLAGHER, LIONEL M	102-A DAHLER ST CALIFORNIA, MO 65018	GP
LATHAM, KENYON S	109 N HIGH CALIFORNIA, MO 65018	GP

146—MONTGOMERY

BYLAND, SAML J	120 HUDSON ST WELLSVILLE, MO 63384	GP

158—NORTHWEST
(Nodaway-Holt-Atchison-Gentry-Worth Counties)

BARE, EDWARD F	102 S 6TH TARKIO, MO 64491	GP
BAUMAN, HENRY C	929 WEST 3RD MARYVILLE, MO 64468	GP
BLESSING, LARRY	LOT 33 HAREWOOD MORGANTOWN, WV 06505	IM
BYLAND, BENJ F	P O BOX C MARYVILLE, MO 64468	GS
CARLIN, ALBERT L	PARK AVE STANBERRY, MO 64489	GP
CARPENTER, WALLACE	100 CASS ST ROCK PORT, MO 64482	GP
CASTILLO, ISABELO	HYWAY 71 SOUTH MARYVILLE, MO 64468	GS
DEAN, WALTER E	HIGHWAY 71 SOUTH MARYVILLE, MO 64468	FP
DITZNEY, DESMION M	NW MO ST UNIV-COLBERT H MARYVILLE, MO 64468	GP
DUNDEE, JOHN T	ST FRANCIS HOSPITAL MARYVILLE, MO 64468	R
DUNSHEE, ROBT E	406 1/2 NORTH MAIN STRE MARYVILLE, MO 64468	FP
HARR, PATRICK B	HIGHWAY 71 S MARYVILLE, MO 64468	FP
HAVALDAR, KANTI L	HWY 71 SPO BOX C MARYVILLE, MO 64468	IM
HUMPHREY, JAMES D	MOUND CITY, MO 64470	GP
HUNTER, JAMES K JR.	HIGH & MAIN FAIRFAX, MO 64446	FP
IMES, ELVIN D	P O. BOX 188 BULL SHOALS, AR 72619	GP
MATTESON, FRANK B	21 W 3RD ST GRANT CITY, MO 64456	GP
NIEDERMEYER, EDWARD L	305 BROAD ST TARKIO, MO 64491	GP
PARSONS, BERNIE	HIGHWAY 136 ALBANY, MO 64402	GP
SELPH, JOHN W	ST FRANCIS HOSPITAL MARYVILLE, MO 64468	R
TENORIO, ARTURO A	MAIN & WILLOW STREETS STANBERRY,, MO 64489	GS
TENORIO, GENOVEVA	MAIN & WILLOW STS STANBERRY,, MO 64489	P
WALTON, PHILIP D	C/O VIRGINIA SLAGLE STANBERRY, MO 64489	GP
WANAMAKER, JOHN M	110 MILL ST W ROCK PORT, MO 64482	GP
WEMPE, GEO R	P O BOX C MARYVILLE, MO 64468	GP

162—NORTH CENTRAL
(Adair-Schuyler-Knox-Sullivan-Putnam Counties)

ENGLISH, MILTON T	2902 N BALTIMORE KIRKSVILLE, MO 63501	ORS
TARVYDAS, FRANCIS	EDINA, MO 63537	US

166—OZARKS
(Barry-Lawrence-Christian-Newton-McDonald Counties)

ANDERSON, PAUL B	113 W HICKORY NEOSHO, MO 64850	GP
APOSTOL, ANDRES G	801 LINCOLN ST MONETT, MO 65708	GS

BARNES, LARRY G IM
113 W HICKORY
NEOSHO, MO 64850
BETZ, RICHARD J IM
SALE MEM HOSP
NEOSHO, MO 64850
BETZ, ROBERT F GS
113 WEST HICKORY
NEOSHO, MO 64850
BIZEK, JOS L GS
500 A PORTER
AURORA, MO 65605
BLANKENSHIP, GEO W GP
ROUTE #6 BOX 385
NEOSHO, MO 64850
BOWMAN, MELVIN C GP
DRAWER 10
NEOSHO, MO 64850
BROWN, FREDERICK B GP
930 MC PHAIL DR
AURORA, MO 65605
CAMPBELL, DANIEL C TS
STATE CHEST HOSPITAL
MOUNT VERNON, MO 65712
CARTER, JAMES R GS
113 W HICKORY ST
NEOSHO, MO 64850
CHRISTIANSON, CHAS S PUD
ROUTE 1
BOX 85
MOUNT VERNON, MO 65712
CRUZ, SERGIO G IM
ST VINCENT HOSP
801 LINCOLN
MONETT, MO 65708
DABBS, WILBUR D GP
SALE MEM HOSP
NEOSHO, MO 64850
DONLEY, ROBT R GP
617 W CLEVE
MONETT, MO 65708
EDWARDS, FRANCIS L IM
P O BOX 230
MONETT, MO 65708
ESPARRAGO, F R GS
808 EUCLID
MONETT, MO 65708
GALINSKY, LEON J PUD
164 PASEO CHUPAROSAS
GREEN VALLEY, AZ 85614
GARDINER, JOS W GP
RT 5, BOX 303
8 WALNUT LANE
KIMBERLING CITY, MO 65686
GLASS, WM J GP
315 A BROADWAY
MONETT, MO 65708
GLOVER, WM A GP
207 S MARKET ST
MOUNT VERNON, MO 65712
GRAVES, ARTHUR J GP
BOX 190
MOUNT VERNON, MO 65712
GUDAPATI, RAO R IM
203 WASHINGTON
AURORA, MO 65605
HAGEN, MICHAEL D GP
500-A PORTER
AURORA, MO 65605
HALVERSON, LARRY W FP
500-A PORTER AVE
AURORA, MO 65605
HAMILTON, WM P GP
BOX 469
AURORA, MO 65605
HELLWEG, CHAS E PUD
MOUNT VERNON, MO 65712
HUNTINGTON IONE PUD
P O BOX 158
SHELL KNOB, MO 65747
KENNEY ROY E GP
113 W HICKORY
NEOSHO, MO 64850
KERR, FRANK T GP
511 W CLEVELAND
MONETT, MO 65708
KING, JAMES C GP
7709 EAST 15TH CT
TULSA, OK 74112
LENTZ, HAROLD C GP
603 HIGHLAND P
NEOSHO, MO 64850
MC MILLAN, DAVID L IM
113 WEST HICKORY
NEOSHO, MO 64850
MEREDITH, MARY J GP
P O DRAWER H
CASSVILLE, MO 65625
MONTELLANO, ARTURO H OBG
808 EUCLID
MONETT, MO 65708
MORRISON, THOS A GP
203 WASHINGTON
AURORA, MO 65605
OCCENO, VICTOR G GS
808 EUCLID
MONETT, MO 65708
OLIVE, GEO C A
113 W HICKORY ST
NEOSHO, MO 64850

ROPER, STANLEY D GP
BOX 160
OZARK, MO 65721
SARDJONO, HERMAN IM
88 GRAVEL ST
CASSVILLE, MO 65625
TAYLOR, LEO T AM
P O BOX 249
NEOSHO, MO 64850
WHITE, RUSSELL D GP
DOCTORS BLDG
500-A PORTER AVE
AURORA, MO 65605
WILLIAMS, JAMES R R
500 PROTER ST
AURORA, MO 65605

170—PEMISCOT

BENITONE, JERRY D GS
BOX 201
CARUTHERSVILLE, MO 63830
BERNARD, JAMES W GP
DOCTORS CLINIC BOX 201
CARUTHERSVILLE, MO 63830
GRABLE, JAMES D GP
203 E 3RD ST
PORTAGEVILLE, MO 63873
GUBIN, ALAN S PD
106 W 12TH ST
CARUTHERSVILLE, MO 63830
HAYES, JOHN W IM
P.O BOX 1132
400 WARD
CARUTHERSVILLE, MO 63830
HAZEL, JAMES G JR R
PEMISCOT CO MED CTR
HAYTI, MO 63851
LOPEZ, RUBEN F GP
216 SO FOURTH ST
HAYTI, MO 63851
LUNAGJAMEKORN, VERACHAI OBG
412 WARD
CARUTHERSVILLE, MO 63830
MC COY, WARREN R GP
1117 WARD AVE
CARUTHERSVILLE, MO 63830
PAINTER, ANDREW E GP
223 KING STREET
PORTAGEVILLE, MO 63873
PAINTER, LATTIE B GP
204 E 3RD ST
PORTAGEVILLE, MO 63873
SHIREY, ARNOLD G GP
200 S 4TH ST
HAYTI, MO 63851
ZANATY, MOSTAFA K FP
10TH & WARD SUITE B
CARUTHERSVILLE, MO 63830

174—PERRY-STE. GENEVIEVE

CARRON, OSCAR A OS
P O BOX 266
MEDICAL ARTS BLDG
PERRYVILLE, MO 63775
CHEN, I-HSIUNG GP
POINTE BASSE PLAZA MALL
STE GENEVIEVE, MO 63670
DE GENOVA, GERARD H GP
HOSPITAL LANE
CENTER DRIVE
STE GENEVIEVE, MO 63670
EUGENIO, ROMEO R PD
PERRY PLAZA
PERRYVILLE, MO 63775
FAIRCHILD, JAMES F GP
12 S JACKSON
PERRYVILLE, MO 63775
FELTZ, LAWRENCE W GP
PERRY PLAZA MED CENTER
PERRYVILLE, MO 63775
FISCHER, THEODORE IM
P O BOX 146
ALTENBURG, MO 63732
GONZALES, JOSE H U
PERRY PLAZA MEDICAL CEN
PERRYVILLE, MO 63775
HAMID, SAID S PD
POINTE BASSE PLAZA
ST GENEVIEVE, MO 63670
HOYE, ROBERT L GS
149 M POINTE BASSE PLAZ
STE GENEVIEVE, MO 63670
LIMPIPHIPHATN, DHAJPHONG GS
PERRY PLAZA MED CTR
PERRYVILLE, MO 63775
LIMPIPHIPHATN, ESTER P PD
PERRY PLAZA MED CTR
PERRYVILLE, MO 63775
LUTKEWITTE, JOS F GP
610 ROZIER STREET
STE GENEVIEVE MO 63670
MC DERMOTT, ALFRED E GP
1104 W REDDICK ST
PERRYVILLE, MO 63775
MEDRANO, CRESENCIANO A OBG
720 DOROTHY STREET
PERRYVILLE, MO 63775
MEDRANO, LINA E IM
720 DOROTHY STREET
PERRYVILLE, MO 63775
PONTILLAS, JOB B GS
NORTHWEST STREETS
PERRYVILLE, MO 63775
RAJU, NIRANJANA IM
POINTE BASSE PLAZA MALL
STE GENEVIEVE, MO 63670
UTTERMAN, WM F GS
LAKE FOREST ESTATES
STE GENEVIEVE, MO 63670
WARRIER, RAJKUMAR K GE
1100 ST CHRISTOPHER DR
ASHLAND, KY 41101
YANG, JOHN S OBG
POINTE BASSE PLAZA MALL
STE GENEVIEVE, MO 63670

178—PETTIS

ADKINS, EDWARD E FP
1718 S INGRAM
SEDALIA, MO 65301
ALLCORN, DONALD J FP
1700 E BROADWAY
SEDALIA, MO 65301
AZAN, ABRAHAM N OBG
1718 S INGRAM
SEDALIA, MO 65301
AZAN, KENNETH N IM
1718 SOUTH INGRAM
SEDALIA, MO 65301
BLOCK JEROME E IM
ROUTE 2 BOX 53B
SEDALIA, MO 65301
BLUHM, JOHN F III D
1718 S INGRAM
SEDALIA, MO 65301
BOWEN, JAMES D FP
LINCOLN COMMUNITY CLINIC
LINCOLN, MO 65338
BRAZOS, JOHN C U
RR #6
SEDALIA, MO 65301
CAMPBELL, ALBERT J GP
625 E 13TH ST
SEDALIA, MO 65301
COLE, WM R GS
RT 1
SMITHTON, MO 65350
DAUM, HAROLD F R
RTE 1
SEDALIA, MO 65301
EDMONDS, ROBT W PD
1718 S INGRAM
SEDALIA, MO 65301
EDWARDS, DAVID R GP
700 S LIMIT AVE
SEDALIA, MO 65301
ELDENBURG, DONALD O GP
700 S LIMIT
SEDALIA, MO 65301
EARKAS, JAMES R R
BOTHWELL MEMORIAL HOSPI
RADIOLOGY DEPT
SEDALIA, MO 65301
FISHER, STANLEY D GP
1313 W 16TH ST
SEDALIA, MO 65301
FRANK, GAEL R OR
1718 SOUTH INGRAM
SEDALIA, MO 65301
GLASS, ROBT L GS
1501 SOUTH GRAND
SEDALIA, MO 65301
HARTMAN, RODNEY C DR
644 E 13TH ST
BOTHWELL MEM HOSP
SEDALIA, MO 65301
HOPKINS, THOMAS S IM
1704 S INGRAM
SEDALIA, MO 65301
HOPKINS, THOS J GP
700 S LIMIT ST
SEDALIA, MO 65301
HOROCHOWSKY, ALEJANDRO GS
1704 SOUTH INGRAM
SEDALIA, MO 65301
LAMY, JOHN E OS
400 DAL WHI-MO COURT
SEDALIA, MO 65301
LOWE, ALVIN L GP
621 W 16TH
SEDALIA, MO 65301
MADDOX, ALBERT R FP
116 1/2 W MAIN
SEDALIA, MO 65301
OWENS, JOHN H PTH
BOTHWELL MEMORIAL HOSPI
SEDALIA, MO 65301
PROCTOR, DONALD C GP
700 S LIMIT ST
SEDALIA, MO 65301
ROBERTS, PAUL A OS
110 W MARSHALL
SWEET SPRINGS, MO 65351
ROMAN, VINCENT T FP
204 RUBY ST
SWEET SPRINGS, MO 65351

STAUFFACHER, C G GP
700 S LIMIT AVE
SEDALIA, MO 65301
STOCKWOOD, ROBT C OBG
1718 S INGRAM
SEDALIA, MO 65301
SULL, WON-JONG GS
1501 SOUTH GRAND
SEDALIA, MO 65301
VAN DYKE, ELMER H OBG
1718 S INGRAM
SEDALIA, MO 65301
WORLEY, CHAS A GP
204 RUBY ST
SWEET SPRINGS, MO 65351

186—PIKE

GLENN, EDWARD A GS
14 LAKESHORE DR
BOWLING GREEN, MO 63334
LEWELLEN, CHAS H GP
120 PROFESSIONAL BLDG
LOUISIANA, MO 63353
MARTIN, WENDELL J GP
211 S 3RD ST
LOUISIANA, MO 63353
MIDDLETON, JOHN W FP
301A GEORGIA ST
LOUISIANA, MO 63353
PITNEY, PHILLIP W FP
211 S 3RD
LOUISIANA, MO 63353
TUERMAN, LAWRENCE G FP
211 S 3RD ST
LOUISIANA, MO 63353
WELSH, THOMAS E III IM
215 S THIRD ST
CLARKSVILLE, MO 63336

88—PLATTE

ALLEN, SAML L AN
3809 NW 62ND TERR
KANSAS CITY, MO 64151
KIMBALL, IRELAND W FP
5621 VALLEY RD N W
KANSAS CITY, MO 64151
THURMAN, HILL C GP
6600 TOWER DR
PARKVILLE, MO 64152

26—ST. CHARLES-LINCOLN

LTMAN, MARTIN P GE
2850 W CLAY ST
ST CHARLES, MO 63301
LUL, MOHAMMAD-ALI H PD
1650 BOONSLICK
ST CHARLES, MO 63301
AGWE, RANJIT M CD
1301 BOONSLICK
ST CHARLES, MO 63301
AIRD, KEIM L P
2860 W CLAY ST
ST CHARLES, MO 63301
ABRERA, TOMAS V GS
6 JUNGERMANN CT
SUITE 109
ST PETERS, MO 63376
ANTY, EUGENE J IM
114 N MAIN ST
ST CHARLES, MO 63301
ARPENTER, JAMES L U
2 WESTBURY ROOM 6
ST CHARLES, MO 63301
LEVER, HENRY W PD
1301 BOONSLICK RD
ST CHARLES, MO 63301
LEVER, VICTOR G OPH
1005 FAIRGROUNDS
ST CHARLES, MO 63301
OMMERFORD, JOHN F GP
1301 BOONSLICK RD
ST CHARLES, MO 63301
ONNELLY, MICHAEL W OPH
#18 HUNTLEIGH DOWNS
ST LOUIS, MO 63131
ONOYER, J MICHAEL OTO
6 JUNGERMANN CIR-SUITE 102
ST PETERS, MO 63376
URRY, MICHAEL J IM
2850 W CLAY ST
ST CHARLES, MO 63301
AMRON, EDWARD O GP
309 GRIFFIN ST
ELSBERRY, MO 63343
EL PIZZO, FERDINAND OBG
1301 BOONSLICK
ST CHARLES, MO 63301
SAI, RAVINDRA S OTO
1650 BOONSLICK RD
ST CHARLES, MO 63301
I FILIPPO, EMIL A ORS
110 S KINGSHIGHWAY
ST CHARLES, MO 63301

DIETERICH, RUSSELL OBG
1301 BOONSLICK
ST CHARLES, MO 63301
DU MONTIER, RENE J GP
P. O. BOX 8
203 CHURCH ST
O'FALLON, MO 63366
DULING, GERALD J PD
ST JOSEPH HOSPITAL
THIRD ST & FIRST CAP
ST CHARLES, MO 63301
DUNCAN, DAVID T OBG
2 WESTBURY DR
ST CHARLES, MO 63301
*FARRELL, JAMES T FP
P O BOX 599
ST PETERS, MO 63376
FELDER, JAMES P GS
323 FIRST CAPITAL
ST CHARLES, MO 63301
FLEMING, ROBT J OPH
1005 FAIRGROUNDS
P. O. BOX 1290
ST CHARLES, MO 63301
FRIESEN, RANDALL G OBG
1301 BOONSLICK
ST CHARLES, MO 63301
GOLDKAMP, JOHN D PD
2 WESTBURY
ST CHARLES, MO 63301
GORE, GLENN L OBG
1650 BUONSLICK RD
ST CHARLES, MO 63301
HAMMES, ROMAN E PD
2850 W CLAY ST
ST CHARLES, MO 63301
KAMADA, TSUTOMU GS
1001 HWY K SUITE 2
O'FALLON MED CTR
O'FALLON, MO 63366
KEEFE, DAVID M PD
#2 WESTBURY DRIVE
ST CHARLES, MO 63301
KEESAL, DENNIS EM
3RD ST & FIRST CAPITOL
ST JOSEPH HOSPITAL
ST CHARLES, MO 63301
KELLER, ROBT M GP
704 W PEARCE BLVD
WENTZVILLE, MO 63385
KEOHANE, MARK ORS
110 SOUTH KINGSHIGHWAY
ST CHARLES, MO 63301
KINGSBURY, ROBT J GS
222 S 2ND ST
ST CHARLES, MO 63301
KISTER, GEO E GP
236 THOMAS ST
ST CHARLES, MO 63301
LINSENMEYER, CHARLES M ORS
110 S KINGSHIGHWAY
ST CHARLES, MO 63301
MEMON, ABDUL M IM
213 E BOONESLICK RD
WARRENTON, MO 63383
MEYERS, JERRY R GS
222 SOUTH SECOND ST
ST CHARLES, MO 63301
MILES, WAYNE B A
2850 W CLAY
ST CHARLES, MO 63301
MOHAPATRA, RAJ N U
2 WESTBURY DRIVE
ST CHARLES, MO 63301
MUENSTER, VINCENT P GS
2850 W CLAY ST
ST CHARLES, MO 63301
MUHM, HARVARD Y GS
1301 BOONSLICK
ST CHARLES, MO 63301
NEUBEISER, BEN L GS
1628 NE 6TH CT
FORT LAUDERDALE, FL 33301
OBANDO, FRANCISCO J GP
TROY, MO 63379
OLSON, RICHARD O GS
2850 W CLAY ST
ST CHARLES, MO 63301

PERNA, VINCENT P PTH
11636 ADMINISTRATOR DR
CREVE COEUR, MO 63141
PIPER, TERRENCE L ORS
#6 JUNGERMANN CIR
ST PETERS, MO 63376
POGGEMEIER, WM H FP
120 FIRST CAPITOL DR
ST CHARLES, MO 63301
RAHMAN, MOHAMMED H PD
1055 DAUTEL LANE
ST LOUIS, MO 63141
REISA, RONALD C OBG
2 WESTBURY
ST CHARLES, MO 63301
ROTER, ALEXANDER M OBG
2 WESTBURY DR
ST CHARLES, MO 63301
ROTHER, PAUL H IM
1301 BOONSLICK RD
ST CHARLES, MO 63301

ROXAS, GENEROSO P IM
533 JEFFERSON STREET
ST CHARLES, MO 63301
RUGGLES, JAMES G PTH
11636 ADMINISTRATION DR
CREVE COEUR, MO 63141
SCHNEIDER, THOS A GS
2850 W CLAY
ST CHARLES, MO 63301
SCHUETZ, ALFRED IM
1301 BOONSLICK
ST CHARLES, MO 63301
*SILL, WILLIAM FP
235 SHELBURNE DR
ST CHARLES, MO 63301
SMOLLER, MARTIN B IM
14 COLONIAL HILL PKWY
ST LOUIS, MO 63141
SOUCY, JOHN C IM
2850 W CLAY ST
ST CHARLES, MO 63301
STEIMAN, BARRY OBG
11636 CHIEFTAIN
CREVE COEUR, MO 63141
STUFFLEBAM, BRIAN W IM
2850 WEST CLAY ST
ST CHARLES, MO 63301
SUAREZ-SOLAR, PEDRO L P
1360 S 5TH ST SUITE 270
ST CHARLES, MO 63301
TASSI, ALBERT A GS
601 INDIAN HILLS
ST CHARLES, MO 63301
TEJERO, JONAS S IM
547 FIRST CAPITOL DR
ST CHARLES, MO 63301
THIELE, OTTO K GS
2 WESTBURY
ST CHARLES, MO 63301
UHLEMANN, JOHN H D
1301 BOONSLICK
ST CHARLES, MO 63301
UMAR, IBRAHIM S PD
4200 N CLOVERLEAF
SUITE A
ST CHARLES, MO 63301
VAFI, HOUSHANG P
3125 LEMAY FERRY RD
ST LOUIS, MO 63125
VART, GARY R OBG
1650 BOONSLICK
ST CHARLES, MO 63301
VIAMONTES, GLORIA E CHP
1360 SOUTH 5TH ST SUITE
ST CHARLES, MO 63301
VIGHI, JAMES R OTO
2850 W CLAY
ST CHARLES, MO 63301
WALSH, MARTIN J IM
#8 MILL RACE CT
ST PETERS, MO 63376
WESTERFELD, ROY A PD
1301 BOONSLICK
ST CHARLES, MO 63301
WILLMAN, MARTIN L OTO
2860 W CLAY
ST CHARLES, MO 63301
WIPFLER, EARL J GS
222 S SECOND
ST CHARLES, MO 63301
YAEGER, GERALD A GP
2444 W CLAY ST
ST CHARLES, MO 63301

190—ST. LOUIS METROPOLITAN

ABADA, ELEANOR S PTH
12527 RIDGEMOOR LAKE
ST LOUIS, MO 63131
ABADA, ROLAND AN
12527 RIDGEMOOR LAKE CT
ST LOUIS, MO 63131
ABBOUD, NABIL AN
216 S KINGS HIGHWAY
ST LOUIS, MO 63110
ABEL, CHAS C IM
BARNES HOSP EAST PAVILION
SUITE 16416
ST LOUIS, MO 63110
ABEL, OLIVER IM
BARNES HOSP E PAVILION
SUITE 16416
ST LOUIS, MO 63110
ABELARDO, MIGUEL L IM
300 S GRAND
ST LOUIS, MO 63103
ABELL, WALTER F PH
6261 REBER PL
ST LOUIS, MO 63139
ABINOJA, CONRADO B IM
4909 LINDENWOOD
ST LOUIS, MO 63109
ABODEELY, DANIEL R
586 PINETREE LAKE
CHESTERFIELD, MO 63017
ABRAMS, MORRIS U
4625 LINDELL BLVD STE 3
ST LOUIS, MO 63108

Doctor of Osteopathy

ABRAMSON, CHAS L R
456 N NEW BALLAS
ST LOUIS, MO 63141

ABU-DALU, ZIAD EP
100 N EUCLID
ST LOUIS, MO 63108

ACETO, THOMAS JR PD
1465 S. GRAND BLVD.
ST LOUIS, MO 63104

ACKER, HARRY L PM
950 ERANCIS
ST LOUIS, MO 63105

ACKERMAN, LAUREN V PTH
#8 CHICKADEE WAY
SETAUKET, NY 11733

ADELMANN, EUGENE N
12166 BIG BEND RD.
SUITE 205
ST LOUIS, MO 63122

ADLER, BENARD C OTO
4511 EOREST PARK BLVD
ST LOUIS, MO 63108

ADLER, STEVEN J R
4444 WEST PINE #313
ST LOUIS, MO 63108

AFE, HELEN PD
1412 SPOEDE RD
ST LOUIS, MO 63131

AFUWAPE, EMMANUEL A GS
2102 STATE ST
BOX 2677
E ST LOUIS, IL 62205

AGASINO, ARMELA M GP
#6 WEST SHORE VILLAGE
CUBA, MO 65453

AGASINO, GAUDENCIO L OBG
#20 HUGHES FORD ROAD
SULLIVAN, MO 63080

AGRESS, HARRY PTH
8631 DELMAR BLVD
ST LOUIS, MO 63124

AGUINALDO, JAIME A IM
9313 MANCHESTER RD
ST LOUIS, MO 63119

AHADI, ABD U IM
13029 AMBOIS DR
ST LOUIS, MO 63141

AHERN. ARCHIBALD M IM
3915 WATSON RD
ST LOUIS, MO 63109

AHLERING, GEO H OBG
621 S NEW BALLAS STE 56
ST LOUIS, MO 63141

AHMAD, AQEEB FP
6917 W FLORISSANT
ST LOUIS, MO 63136

AHMAD, NASEER IM
1325 SOUTH GRAND BLVD
ST LOUIS, MO 63104

AHMAD, NUSRAT J OBG
2506 BOPP RD
ST LOUIS, MO 63131

AHMED, NOOR PS
#2 MEMORIAL DRIVE
SUITE 104
ALTON, IL 62002

AITKEN, LOUIS E IM
4989 BARNES HOSPITAL PL
5102 QUEENY TOWER BL
ST LOUIS, MO 63110

AKER. UMIT T IM
1031 BELLEVUE AVE.
ST LOUIS, MO 63117

AKYOL, SALIM CD
5505 DELMAR
STE 506
ST LOUIS, MO 63112

AL-ALY, MOHAMMED R
601 S BRENTWOOD
CLAYTON, MO 63105

ALBERA, VICTOR H AN
RR #2-BOX 236
ST CLAIR, MO 63077

ALBERT, INGRID D
2428 WOODSON
ST LOUIS, MO 63114

ALEGRE, JORGE M IM
224 S. WOODS MILL
CHESTEREIELD. MO 63017

ALEKSANDER, BERNARDO G P
300 MANSION HOUSE CTR
ST LOUIS, MO 63102

ALEX, MORRIS IM
522 N NEW BALLAS RD
ST LOUIS, MO 63141

ALEXANDER, GEO K GS
SUITE 207
3009 N NEW BALLAS RD
ST LOUIS, MO 63131

ALLEN, HOLLIS N PTH
2204 WELSCH INDUSTRIAL CT
ST LOUIS. MO 63141

ALLEN. JAMES H PTH
2204 WELSCH INDUSTRIAL CT
ST LOUIS, MO 63141

ALLEN, WILLARD M OBG
UNIV OF MARYLAND HOSP
BALTIMORE, MD 21201

ALLEN, WM E TR
4951 MAFFITT PL
ST LOUIS, MO 63113

ALMIRON, OSIAS A GS
10345 WATSON ROAD
CRESTWOOD, MO 63127

ALONSO, JOSE M GP
10547 KENNERLY DRIVE
ST LOUIS, MO 63128

ALONSO-YAGUE, PASCUAL IM
4585 WASHINGTON
ELORISSANT, MO 63033

ALTHEIDE, HARVEY E PH
9 MAGNOLIA DR
ST LOUIS, MO 63124

ALVAREZ, ULISES C IM
4585 WASHINGTON
SUITE A1
ELORISSANT, MO 63033

ALVIS, EDMUND B OPH
211 N MERAMEC
ST LOUIS, MO 63105

AMADO-LEDO, DAVID E EP
5045 TOWNE CENTRE DR.
ST LOUIS, MO 63128

AMANAT, HABIBOLLAN EM
232 S WOODSMILL
ST LUKES HOSPITAL
CHESTERFIELD, MO 63017

AMIN, AURORA P
177 PLANTATION DRIVE
ST LOUIS, MO 63141

AMIN. NAVIN P OPH
607 N GRAND STE 425
ST LOUIS, MO 63103

AMJAD, MOHAMMAD T PD
10004 KENNERLY RD
ST. ANTHONY MED BLDG.
ST LOUIS, MO 63128

ANDERSON, CHARLES B GS
6343 ALEXANDER DR
CLAYTON. MO 63105

ANDERSON, JOHN M P
100 N EUCLID
ST LOUIS, MO 63108

ANGLO, LUIS B FP
10004 KENNERLY RD
SUITE 155
ST LOUIS, MO 63128

ANSLINGER, DAVID L IM
14329 LAKE TAHOE DR
CHESTEREIELD, MO 63017

ANSTEY, GEO C OBG
10449 ST CHARLES ROCK R
ST ANN, MO 63074

ANSTEY, JOHN OBG
#15 HORTENSE PL
ST LOUIS, MO 63108

ANTONIOU, CHRISTOS A PD
3434 BRIDGLAND
BRIDGETON, MO 63044

ANWAR, MOHAMMAD A GE
11115 NEW HALLS FERRY ROAD
SUITE 301
FLORISSANT, MO 63033

ARCELONA, JESUS GP
3535 S JEEFERSON
ST LOUIS, MO 63118

ARCHER, CAROL R R
1325 S GRAND
ST LOUIS, MO 63104

ARENOS, PROCESO T GS
120 PROGRESS PKWY
MARYLAND HEIGHT, MO 63043

ARIAS, FERNANDO OBG
4911 BARNES HOSP PLAZA
ST LOUIS, MO 63110

ARNESON, AXEL N OBG
6536 DEVONSHIRE
ST LOUIS, MO 63109

ARNEY, WM G P
16 HAMPTON VILLAGE
ST LOUIS, MO 63109

ARNOLD, KENNETH J GS
6107 QUEENY TOWER
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110

ARNOT, JOHN P ORS
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63105

ARONBERG, JEROME M D
141 N MERAMEC
ST LOUIS, MO 63105

ARRIBAS, NEVA P OPH
EAST PAVILION SUITE 17413
4949 BARNES HOSP PLAZA
ST LOUIS, MO 63110

ARUNSKI, DAVID L IM
3535 SO JEFFERSON
ST. LOUIS, MO 63118

ASGHAR, MOHAMMAD OBG
2119 BELLEVUE #C
ST LOUIS, MO 63143

ASHBY, RICHARD NS
621 S NEW BALLAS
ST LOUIS, MO 63141

AUCLAIR, RONALD J PHU
456 N NEW BALLAS RD
ST LOUIS. MO 63141

AUER, ARTHUR I GS
667 LANGTON
ST LOUIS, MO 63105

AUEDER HEIDE, G R IM
216 NORTHLAND MEDICAL B
ST LOUIS, MO 63136

AUFDERHEIDE, JOHN E DR
MALLINCKRODT INST. OF RAD
ST. LOUIS, MO 63110

AUGUSTE, MELEDAIN PD
4400 LINDELL B-1
ST LOUIS, MO 63108

AUGUSTIN, CESAR R
P O. BOX 5386
NAGEL STATION
ST LOUIS, MO 63115

AVINS, LAURENCE R OPH
UNIV CLUB TOWER
1034 S BRENTWOOD
ST. LOUIS, MO 63117

AVIOLI, LOUIS V IM
216 S KINGSHIGHWAY
ST LOUIS, MO 63110

AVONDET, ALAN G IM
BARNES HOSPITAL
ST LOUIS, MO 63110

AYATA, SEDAT M AN
6420 CLAYTON RD
ST LOUIS, MO 63117

AYER, ANGELA G OPH
2601 N WHITTIER ST
ST LOUIS, MO 63108

AYKENT, YAVUZ CD
950 FRANCIS PL
ST LOUIS, MO 63105

AYLWARD, HOWARD J PS
6651 CHIPPEWA
ST LOUIS, MO 63109

AYLWARD, HOWARD J JR IM
911 S BRENTWOOD BLVD
ST LOUIS, MO 63105

AYRES, STEPHEN M CD
1325 SOUTH GRAND BLVD
ST LOUIS, MO 63104

AYVAZIAN, VATCHE H GS
615 S NEW BALLAS RD
ST LOUIS, MO 63141

AZUMA, NOBUTAKA GP
3901 THOLOZAN
ST LOUIS, MO 63116

AZZAM, FARID J AN
1325 SOUTH GRAND BLVD
ST LOUIS, MO 63104

BABKA, JOS J GS
29 BELLERIVE COUNTRY CL
GROUNDS
ST LOUIS, MO 63141

BACKER, MATTHIAS H OBG
10345 WATSON RD
ST LOUIS, MO 63127

BAGBY, JAMES W D
#7 COUNTRY LIFE ACRES
ST LOUIS, MO 63131

BAGWE, LATA R OBG
SUITE #105,
14377 WOODLAKE DR
CHESTERFIELD, MO 63017

BAHL, OM P CD
10004 KENNERLY RD. #320
ST LOUIS, MO 63128

BAILEY, BRENNAN GS
6356 CLAYTON RD
ST LOUIS, MO 63117

BAILEY, WM H OPH
9157 MILTON AVE
ST LOUIS, MO 63114

BALDWIN, RICHARD ORS
3009 NORTH BALLAS RD
SUITE #204
ST LOUIS, MO 63131

BALE, ROBERT D OBG
777 S NEW BALLAS RD
CREVE COEUR, MO 63141

BALLAL, H S IM
3915 WATSON RD
ST LOUIS, MO 63109

BALLINGER, WALTER F C
4960 AUDUBON AVE
ST LOUIS, MO 63110

BALSTER VERNON H OM
819 LOCUST
ST LOUIS, MO 63101

BAMSHAD, JERRY D
1130 GRAHAM RD
FLORISSANT, MO 63031

BANDLE, DONALD E P
3801 JANUARY AVE
ST LOUIS, MO 63109

BANEZ, COLITA L P
5400 ARSENAL
ST LOUIS. MO 63144

BANTON, MILAGROS R IM
13634 PEACOCK FARM RD
ST LOUIS, MO 63131

BANTON, THOMAS I OR
12255 DE PAUL DR
BRIDGETON. MO 63044

BANTON WM C PH
13634 PEACOCK FARM RD
ST LOUIS, MO 63131

BARDSLEY, JOHN L R
621 S NEW BALLAS RD
ST LOUIS, MO 63141
BARI, WAGIH PTH
615 S NEW BALLAS RD
ST LOUIS, MO 63141
BARKER, EDWARD T PD
2821 N BALLAS RD
ST LOUIS, MO 63131
BARNER, HENDRICK B GS
1325 S GRAND BLVD
ST LOUIS, MO 63104
BARNES, WALTER C GPM
13 N TEALBROOK
ST LOUIS, MO 63141
BAROUDI, ISSA F GS
4466 WEST PINE
ST LOUIS, MO 63108
BARRAGAN, HECTOR D GS
533 COUCH
C/O ST JOS/HOS/MED/BLDG
ST LOUIS, MO 63122
BARRETT, SCOTT R OBG
5505 DELMAR
ST LOUIS, MO 63112
BARRETT, SCOTT R JR OBG
591 SUNBRIDGE DR
CHESTERFIELD, MO 63017
BARROW, JACK IM
35 N CENTRAL AVE
ST LOUIS, MO 63105
BARTELL, MICHAEL F L IM
1035 BELLEVUE AVE
ST LOUIS, MO 63117
BARTNICK, MITCHEL L GP
RR 2 BOX 38
DE SOTO, MO 63020
BARTON, ROBT W IM
4910 FOREST PARK
ST LOUIS, MO 63108
BASHITI, MOHAMMAD F AN
232 S. WOODS MILL RD
CHESTERFIELD, MO 63017
BASSMAN, DONALD R GS
4960 AUDUBON RM115
ST LOUIS, MO 63110
BAUER, DANIEL J IM
12908 FERNWAY LANE
CREVE COEUR, MO 63141
BAUER, EUGENE A D
BARNES HOSPITAL PLAZA
ST LOUIS, MO 63110
BAUER, JOHN D PTH
104 NORTHLAND MED BLDG
ST LOUIS, MO 63136
BAUER, JOS A PD
5 RIDGEWOOD RD
ST LOUIS, MO 63124
BAUER, ROBT A FP
2386 N HIGHWAY 67
FLORISSANT, MO 63033
BAUER, SPOMENKO AN
216 S. KINGSHIGHWAY BLVD
ST LOUIS, MO 63110
BAULA, ARMINDO G R
609 JEFFERSONIAN DR
ST LOUIS, MO 63125
AUSCHARD, FREDERICK D D
469 N HANLEY RD.
ST LOUIS, MU 63130
EARE, J B U
224 S. WOODS MILL RD
SUITE 510
CHESTERFIELD, MO 63017
EARE, LUCIA V AN
12 COACH N FOUR
ST LOUIS, MO 63131
EASLEY, LOUIS K GE
4555 MANATEE TERR.
STUART, FL 33494
EATO, DAVID L IM
6305 DEVONSHIRE
ST LOUIS, MO 63109
EATY, WM R OBG
35 MUILFIELD LANE
ST LOUIS, MO 63141
ECKER, BERNARD OPH
660 S EUCLID
ST LOUIS, MO 63110
ECKER, EDWARD J U
511 SO WARSON RD
ST LOUIS, MO 63124
ECKER, ROBT L OBG
777 SO NEW BALLAS RD
ST LOUIS, MO 63141
ECKER, STANLEY C OPH
4401 HAMPTON
ST LOUIS, MO 63109
ECKETTE, EDMUND OBG
1245 GRAHAM RD RM 302
FLORISSANT, MO 63031
ECKMAN, DONALD E GP
4205 VIRGINIA AVE
ST LOUIS, MO 63111
EDWINEK, JOHN R
4511 FOREST PARK BLVD
ST LOUIS, MO 63108
EHBAHANI, PARVIZ M AN
ST LOUIS UNIV MED DEPT
ST LOUIS, MO 63104

BEHRENS, DONALD T GS
3654 S GRAND AVE
ST LOUIS, MO 63118
BEHRENS, GERALD L GS
11271 HERMITAGE HILL PL
ST LOUIS, MO 63131
BEIDLE, RAYMOND J PD
500 NW PLAZA-RM 513
ST ANN, MO 63074
BELEW, JOE E OBG
777 S NEW BALLAS RD STE
ST LOUIS, MO 63141
BELL, MARTIN J GS
500 S KINGSHIGHWAY
ST LOUIS, MO 63110
BEN-GALIM, EHUD PD
12660 LAMPLIGHTER SQUARE
ST LOUIS, MO 63128
BENAGE, CLARENCE M GS
11115 NEW HALLS FERRY RD.
SUITE 303
FLORISSANT, MO 63033
BENDER, ROBERT L FP
615 S NEW BALLAS
CREVE COEUR, MO 63141
BENEDICT, WILLIAM W IM
522 N NEW BALLAS RD
CREVE COEUR, MO 63141
BENNETT, JOHN OBG
950 FRANCIS PLACE
SUITE 219
ST LOUIS, MO 63105
BENNETT, KENNETH J GS
456 N NEW BALLAS RD
ST LOUIS, MO 63141
BENOIST, WALTER F PD
119 CHURCH ST
ST LOUIS, MO 63135
BERARD, LOUIS N U
721 OLIVE ST-ROOM 912
ST LOUIS, MO 63101
BERG, EDWARD F OPH
5 CEDARCREST
ST LOUIS, MO 63132
BERG, LEONARD N
BARNES HOSPITAL PLAZA
SUITE 16304
ST LOUIS, MO 63110
BERG, RALPH GP
3203 S GRAND BLVD
ST LOUIS, MO 63118
BERGER, EDWARD J GPM
300 S GRAND BLVD
ST LOUIS, MO 63103
BERGMAN, HUGO F GP
2920 MONITEAU DR
ST LOUIS, MO 63121
BERGMANN, DWAYNE L U
6500 CHIPPEWA ST
ST LOUIS, MO 63109
BERGMANN, JOHN F P
522 N NEW BALLAS RD
ST LOUIS, MO 63141
BERGMANN, MARTIN TS
2821 N BALLAS RD.
ST LOUIS, MO 63131
BERGNER, GRACE F IM
GRANT MEDICAL CLINIC
114 N TAYLOR
ST LOUIS, MO 63108
BERLAND, HARRY I R
141 N MERAMEC
CLAYTON, MO 63105
BERMAN, WM OBG
4910 FOREST PARK BLVD
ST LOUIS, MO 63108
BERNABE, FLORINIO H OBG
2250 UNION RD
ST LOUIS, MO 63125
BERNABE, OFELIA M IM
1642 FRONTENACWOOD LANE
FRONTENAC, MO 63131
BERNDSEN, GERARD H FP
12933 TOPPING ESTATES S
ST LOUIS, MO 63131
BERNI, ANTHONY A R
777 S NEW BALLAS ROAD
ST LOUIS, MO 63141
BERNSTEIN, AARON M IM
7171 DELMAR
ST LOUIS, MO 63130
BERRY, JOHN W IM
621 S NEW BALLAS RD-STE
ST LOUIS, MO 63141
BERWALD, DAVID M GS
11789 NATURAL BRIDGE
BRIDGETON, MO 63044
BERWALD, IRVIN I FP
747 OLD BOHOMME ROAD
ST LOUIS, MO 63132
BETTONVILLE, PAUL J IM
6331 PERSHING
ST LOUIS, MO 63130
BHATTACHARYA, ARJUN GS
7200 MANCHESTER RD
ST LOUIS, MO 63143
BHUYAN, MAHENDRA IM
6500 CHIPPEWA SUITE 302
ST LOUIS, MO 63109

BIDDY, RALPH L P
965 MASONRIDGE RD
ST LOUIS, MO 63141
BIEGER, R CYRIL PTH
4906 ARGYLE APT 2 W
ST LOUIS, MO 63108
BIELLO, DANIEL R DR
510 SOUTH KINGSHIGHWAY
ST LOUIS, MO 63110
BIGGS, F D IM
1034 SOUTH BRENTWOOD
SUITE 500
ST LOUIS, MO 63117
BIGGS, JOHN P
1034 SO BRENTWOOD SUITE
SUITE 800
ST LOUIS, MO 63117
BILCHIK, RONALD C OPH
777 S NEW BALLAS ROAD
ST LOUIS, MO 63141
BILEY, LAWRENCE J GS
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033
BILSKY, NATHAN IM
2851 NE 183RD ST
MIAMI, FL 33160
BINDBEUTEL, DONALD A GS
25 WILLOW OAK LANE
ST LOUIS, MO 63122
BINDER, MORTON A IM
4652 MARYLAND AVE
ST LOUIS, MO 63108
BINNINGTON, H B GS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
BINZ, DONALD E II FP
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
BIRCHER, JOHN L R
3932 FEDERER PL
ST LOUIS, MO 63116
BIRD, H W P
10287 CLAYTON
ST LOUIS, MO 63124
BIRENBAUM, AARON IM
10511 OLD OLIVE ST RD
ST LOUIS, MO 63141
BIRGE, CLIFFORD A IM
5535 DELMAR
ST. LOUIS, MO 63112
BISHOP, MARTON D GS
751 ST FRANCIS ST
FLORISSANT, MO 63031
BISNO, DANI OPH
8000 BONHOMME AVE
CLAYTON, MO 63105
BLACK, BRADLEY C OPH
7963 ALDERSHOT
ST LOUIS, MO 63123
BLACK, JOSEPH T N
BARNES HOSPITAL PLAZA
SUITE 16304
ST LOUIS, MO 63110
BLAIR, JOHN D PTH
1465 S GRAND
ST LOUIS, MO 63104
BLAIR, OLGA M PTH
1402 S GRAND
ST LOUIS, MO 63104
BLAIR, VILRAY P ORS
42 MAGNOLIA DR
ST LOUIS, MO 63124
BLANKE, THOMAS J GS
1034 S BRENTWOOD BLVD
SUITE 776
ST LOUIS, MO 63117
BLASKIEWICZ, ROBERT J OBG
2821 N BALLAS ROAD
SUITE 105
ST. LOUIS, MO 63131
BLATH, RICHARD A U
224 S WOODS MILL RD
SUITE 510
CHESTERFIELD, MO 63017
BLEISCH, VIRGIL R PTH
6150 OAKLAND AVE
ST. LOUIS, MO 63139
BLOCK, ARNOLD S P
100 N EUCLID AVE STE 60
ST LOUIS, MO 63108
BLOOMBERG, GORDON R PD
777 S NEW BALLAS RD
ST LOUIS, MO 63141
BLYTHE, JAMES G OBG
615 S NEW BALLAS RD
ST LOUIS, MO 63141
BOBROW, JAMES C OPH
211 NORTH MERAMEC
ST LOUIS, MO 63105
BOCK, LINDA P PD
522 N NEW BALLAS SUITE 206
ST LOUIS, MO 63141
BOCKELMAN, CLIFFORD H IM
2615 BRENTWOOD BLVD
ST LOUIS, MO 63144
BOEDEKER, JAMES P OBG
1035 BELLEVUE AVE
SUITE 205
ST LOUIS, MO 63117

BOHIGIAN GEO M 456 N NEW BALLAS RD SUITE 259 ST LOUIS, MO 63131	OPH
BOHLING, COREY A 2821 N BALLAS RD SUITE C-40 ST LOUIS, MO 63131	CD
BOLDIZAR, ALBERT G 2821 N BALLAS RD ST LOUIS, MO 63131	OPH
BOLDT, THOS H 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BOLES, C R 35 N CENTRAL AVE CLAYTON, MO 63105	PD
BOLINSKE, ROBT E 11722 STUDT AVE ST LOUIS, MO 63141	A
BOLLOZOS, GEORGE D 3933 S BROADWAY ST LOUIS, MO 63118	PTH
BOLTON, ROBT L 740 S 4TH ST ST LOUIS, MO 63102	GS
BONACORSI, JOHN 12255 DEPAUL DR BRIDGETON, MO 63044	OTO
BOND, LESLIE F 3400 N KINGS HWY ST LOUIS, MO 63115	GS
BONDURANT, BRYCE H P O BOX 1199 GREEN VALLEY, AZ 85614	OBG
BONFANTI, ALBERT L P O BOX 4148 JENNINGS S ST LOUIS, MO 63136	OBG
BONIUK, ISAAC EAST PAVILION SUITE 17413 4949 BARNES HOSP PLAZA ST LOUIS, MO 63110	OPH
BONSANTI, ROBT L 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BOONKHAM, CHOTCHAI 3466 BRIDGELAND DR BRIDGETON, MO 63044	IM
BOONSHAFT, BENJE 10511 OLD OLIVE ST RD ST LOUIS, MO 63141	IM
BOROWSKY, BENJ A 4910 FOREST PK ST LOUIS, MO 63108	IM
BORTNICK, ARTHUR R 777 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
BOSCHE, ALFRED J 456 NORTH NEW BALLAS RD ST LOUIS, MO 63141	OBG
BOUHASIN, JOHN D 3720 HAMPTON ST LOUIS, MO 63109	PD
BOURJOLLY, WILSON P 11115 NEW HALLS FERRY RD FLORISSANT, MO 63033	OPH
BOURKE, THOS E 3394 MC KELVEY RD BRIDGETON, MO 63044	IM
BOVERT, JOS C 1862 POINT OAK DR ST LOUIS, MO 63131	OBG
BOWDERN, EDWARD H 4440 LINDELL APT. 1102 ST LOUIS, MO 63108	GS
BOWEN, STEPHEN F 16 HAMPTON VILLAGE PLZ ST LOUIS, MO 63109	OPH
BOWEN, WILLIAM G 4652 MARYLAND AVE ST LOUIS, MO 63108	IM
BOWER, RICHARD 4960 AUDUBON ST LOUIS, MO 63110	GS
BOWERMAN, HAROLD H 607 N GRAND BLVD ST LOUIS, MO 63103	OTO
BOWERS, JAMES E 533 COUCH AVENUE ST LOUIS, MO 63122	PD
BOWERSOX, WARREN A 319 N 1ST ST PACIFIC, MO 63069	GS
BOWLES, G R 12166 BIG BEND ST LOUIS, MO 63122	IM
BOWLES, WM T SUITE 17301 WEST PAVILION BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	U
BOYARSKY, SAUL 4960 AUDUBON AVE ST LOUIS, MO 63110	U
BRADLEY, RICHARD V 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	GS
BRADY, HARRY R 1609 DUNMRR DR ST LOUIS, MO 63131	OPH
BRANCATO, DONALD H 11155 DUNN RD SUITE 216 ST LOUIS, MO 63136	ORS
BRAND, EARL L 120 E LOCKWOOD ST LOUIS, MO 63119	GP
BRANDWIN, LESLIE M 4910 FOREST PARK BLVD ST LOUIS, MO 63109	IM
BRANGLE, ROBT W 765 HIGH HAMPTON RD ST LOUIS, MO 63124	PTH
BRAUFMAN, HARVEY S 111 CHURCH ST FERGUSON, MO 63135	OPH
BREMER, RITA F 3024 ORTON ST ST CHARLES, MO 63301	IM
BRENNAN, DANL J 777 S NEW BALLAS RD ST LOUIS, MO 63141	PS
BRENNAN, GEO A 5203 CHIPPEWA ST SUITE 303 ST LOUIS, MO 63109	OBG
BRENNAN, ROBERT A JR 5376 FERBET ESTATES DR ST LOUIS, MO 63128	OBG
BRENNAN, ROBT A 5203 CHIPPEWA #303 ST LOUIS, MO 63109	OBG
BRENNAN, ROBT V 533 COUCH AVE KIRKWOOD, MO 63122	U
BRERETON, ROBT L 206 N CLAY AVE KIRKWOOD, MO 63122	GS
BRICKER, EUGENE M 2410 RIDGEFIELD RD COLUMBIA, MO 65201	GS
BRIELMAIER, CHARLES 6420 CLAYTON ST LOUIS, MO 63117	AN
BRIGHAM, DAVID W 1103 DOVERGATE ST LOUIS, MO 63122	OPH
BRIMMO, A I 6000 W FLORISSANT ST LOUIS, MO 63136	GS
BRINKMAN, ROBERT A 522 N NEW BALLAS ST. LOUIS, MO 63141	IM
BRION, PACELLI E 6500 CHIPPEWA STE 307 ST LOUIS, MO 63109	P
BRISCOE, JOHN R 7346 A MANCHESTER ST LOUIS, MO 63143	GP
BRODEUR, ARMAND E 1465 S GRAND AVE ST LOUIS, MO 63104	R
BRODY, ARNOLD G 3654 S GRAND ST LOUIS, MO 63118	FP
BRONSON, SHAEL S 777 S NEW BALLAS RD ST LOUIS, MO 63141	P
BROOKES, ROBT D 224 SO WOODS MILL RD SUITE 360 CHESTERFIELD, MO 63017	P
BROUN, GORONWY O 6359 WATERMAN AVE ST LOUIS, MO 63130	IM
BROWN, BARRY D 35 N CENTRAL CLAYTON, MO 63105	IM
BROWN, FREEMAN F III 660 SOUTH EUCLID ST. LOUIS, MO 63110	AN
BROWN, JAMES M 11936 BETH DR ST LOUIS, MO 63126	FP
BROWN, SEYMOUR 2421 BAXTON WAY CHESTERFIELD, MO 63017	AN
BRUCE, HELEN M ST LOUIS DIVISION OF HEALTH P O.BOX 14702 ST LOUIS, MO 63178	PH
BRUNS, KENNETH 7700 FLORISSANT RD ST LOUIS, MO 63121	AN
BRYAN, JAMES H 950 FRANCIS PLACE CLAYTON, MO 63105	OPH
BRYAN, WM T 9349 PARKSIDE DRIVE ST LOUIS, MO 63144	OTO
BUCY, JAMES G BARNES HOSP PLAZA SUITE 17-302 ST LOUIS, MO 63110	U
BUDD, JOHN J 9012 MANCHESTER RD ST LOUIS, MO 63144	IM
BUFTINER, JOHN B 3106 QUEENY TOWERS BARNES HOSP PLAZA ST LOUIS, MO 63110	GS
BURCH, PHILLIP M 615 S NEW BALLAS RD ST LOUIS, MO 63141	PTH
BURCHARD, LUKE L 615 S NEW BALLAS RD CREVE COEUR, MO 63144	FP
BURDE, RONALD M 660 S EUCLID AVE ST LOUIS, MO 63110	OPH
BURDGE, ROBERT E 1325 S GRAND BLVD ST LOUIS, MO 63104	ORS
BURGESS, DEAN EAST PAVILION SUITE 17413 4949 BARNES HOSP PLAZA ST LOUIS, MO 63110	OPH
BURKE, ROBT I 6379 DEVONSHIRE AVE ST LOUIS, MO 63109	PD
BURKHART, EDWARD F 621 S NEW BALLAS RD ST LOUIS, MO 63141	D
BURMEISTER, RAY W INTERMED MED CONSULTANT 3535 SO JEFFERSON ST LOUIS, MO 63118	IM
BURNS, EDWARD L JR 621 S NEW BALLAS CREVE COEUR, MO 63141	IM
BURNS, FRANCIS J 6500 ELLENWOOD ST LOUIS, MO 63105	CRS
BURNSIDE, CHAS R 206 W ARGONNE KIRKWOOD, MO 63122	GP
BURR, DONALD C R R. #3 NASHVILLE, IL 62263	R
BURRIS, GARRETT C 11745 OLIVE ST ST LOUIS, MO 63141	PD
BURST, DONALD O 6500 CHIPPEWA ST ST LOUIS, MO 63109	ORS
BURSTEIN, ROBT 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	OBG
BUSCH, ANTHONY K 6600 W MAIN ST SUITE #8 BELLEVILLE, IL 62223	P
BUSSE, PAUL 120 W MERMOD ST LOUIS, MO 63122	R
BUSSMAN, CARL E 1325 S GRAND ST LOUIS, MO 63104	GS
BUSSMANN, DONALD W 927 IRON GATE WALK BALLWIN, MO 63011	CD
BUTCHER, HARVEY R 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	GS
BUTSCH, RICHARD H 901 CLAYTON RD BALLWIN, MO 63011	IM
BYRNE, PAUL A ARCHBISHOP BERGAN MERCY HOSP 7500 MERCY ROAD OMAHA, NE 68124	PD
BYRUM, FRITZ A 650 MANCHESTER RD BALLWIN, MO 63011	FP
CABBABE, EDMOND B 1325 S GRAND ST LOUIS, MO 63104	PS
CABONCE, AUGUST L 6829 PARKER RD FLORISSANT, MO 63033	FP
CABRAL, GALILEU 14377 WOODLAKE DR CHESTERFIELD, MO 63017	IM
CACIOLO, CARLO P 3654 S GRAND BLVD ST LOUIS, MO 63118	IM
CACIOPPO, JOS E 1040 N MASON RD N ST LOUIS, MO 63141	GP
CADICE, JOHN B 1245 GRAHAM RD APT 408 FLORISSANT, MO 63031	OBG
CAJILI, ANTONIO T 300 S GRAND ST LOUIS, MO 63103	IM
CALDWELL, NATALIE A 3200 S 13TH ST ST LOUIS, MO 63118	IM
CALLAGHAN, GERARD M 1035 BELLEVUE ST LOUIS, MO 63117	OBG
CALLAHAN, DONALD E 11155 DUNN RD RM 201 ST LOUIS, MO 63136	R

ALLAHAN, JOS D CHP
22 W BRENTMOOR PARK
ST LOUIS, MO 63105
ALMAN, CARL H GS
7750 STANFORD
UNIVERSITY CITY, MO 63130
ALODNEY, MARTIN M FD
8730 TEASDALE BLVD
ST LOUIS, MO 63124
AMEL, H M OBG
906 CHAPEL OAKS
ST LOUIS, MO 63131
AMPOS, FRANCISCO J PTH
11636 ADMINISTRATION DR
ST LOUIS, MO 63141
ANAAN, SAML A OPH
607 N GRAND BLVD STE 60
ST LOUIS, MO 63103
NLAS, ARSENIO L GS
7670 SUNRAY LANE
ST LOUIS, MO 63123
NNON, EDWARD M U
1034 BRENTWOOD BLVD STE
ST LOUIS, MO 63117
NTOR, HARVEY E N
11745 OLIVE ST RD
ST LOUIS, MO 63141
*NTOR, SOL F EM
272 GLEN HOLLOW DR
CHESTERFIELD, MO 63017
PAPAS-WAXELMAN, L R IM
9903 GRAVOIS AVE
AFFTON, MO 63123
LIN, DAVID A PS
456 NORTH NEW BALLAS RD
ST LOUIS, MO 63141
DENAS, JUAN O IM
11155 DUNN RD
#213 CHRISTIAN HOSP
ST LOUIS, MO 63136
RLIN, M R U
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
RLSON, ARNE E GS
3466 BRIDGELAND DR
SUITE 150
BRIDGETON, MO 63044
RMICHAEL, KIM A IM
537 BARRETT AVNEUE #2
HAVERFORD, PA 19041
RMODY, JOHN P IM
12209 ROYAL VALLEY
ST LOUIS, MO 63141
RONONGAN, CARMELITO M GS
193-8 STONEFIELD DR
WATERBURY, CT 06705
RRANZA, MAURO J FP
P O BOX 10817
ST LOUIS, MO 63129
RRIER, JOHN A IM
300 S GRAND
ST LOUIS, MO 63103
RROLL, GEO A GS
6248 A NOTTINGHAM AVE
ST LOUIS, MO 63109
ROLL, GRAYSON L U
710 SOUTH HANLEY ROAD
ST LOUIS, MO 63105
ROLL, PERCY J GS
10341 MANCHESTER RD
ST LOUIS, MO 63122
TER, EDWIN F ORS
777 S NEW BALLAS RD
CREVE COEUR, MO 63141
Y, JOHN M IM
224 SOUTH WOODS MILL RD
CHESTERFIELD, MO 63017
E, MARY C PTH
13001 DIETERLE LANE
ST LOUIS, MO 63127
EY, ARTHUR L OBG
216 SO KINGSHIGHWAY BLVD
ST LOUIS, MO 63110
EY, EDWIN J OPH
4466 W PINE
ST LOUIS, MO 63108
EY, ELIOT C PD
615 S NEW BALLAS
ST LOUIS, MO 63141
ON, ELBERT H GS
1704 S BROADWAY
ST LOUIS, MO 63104
TASUS, MANUEL A GS
600 N UNION BLVD
ST LOUIS, MO 63108
TRO, JUAN M IM
3654 S GRAND
ST LOUIS, MO 63118
ANZARO, ANTHONY F GP
7705 CLIFTON AVE
ST LOUIS, MO 63139
ANZARO, FRANCIS J CD
1688 FRONTENAC WOODS LANE
ST LOUIS, MO 63131
ANZARO, FRANK I JR OPH
3660 VISTA
ST LOUIS, MO 63110

CATANZARO, RUDOLPH E GS
8131 PAGE BLVD
ST LOUIS, MO 63130
CAYABYAB, PEDRO C GP
3610 S BROADWAY
ST LOUIS, MO 63118
CHACKO, RUTH IM
817 LISAKAY DR
ST LOUIS, MO 63122
CHADARATANA, PHADUNG OTO
12666 MASON FOREST DR ,
ST LOUIS, MO 63141
CHALLONER, DAVID R IM
DEAN-ST LOUIS UN SC MED
ST LOUIS, MO 63104
CHAMNESS, JAMES T PS
224 S WOODS MILL RD #420
CHESTERFIELD, MO 63017
CHAPLIN, HUGH IM
DEPT OF PREVENTIVE MED
BOX 8113
ST LOUIS, MO 63110
CHARLES, BENJ H IM
2 FIELDING ROAD
ST LOUIS, MO 63124
CHARLES, FRANCOIS CD
600 N UNION
ST LOUIS, MO 63108
CHARNAS, RAYMOND M IM
1040 MASON RD N
ST LOUIS, MO 63141
CHAVES, RUTILLO M OBG
1410 BOBOLINK PL
ST LOUIS, MO 63144
CHAVEZ, SALVADOR GS
5048 PEYTON PLACE
ST LOUIS, MO 63128
CHEHVAL, MICHAEL J U
1035 BELLEVUE AVE
ST LOUIS, MO 63117
CHEN, JAMES Z W TR
14014 CAMBERRA CT
CHESTERFIELD, MO 63017
CHERRE, CHAS J R
10 RIDGETOP
ST LOUIS, MO 63117
CHEUK, SHU-SUM GS
224 S WOODS MILL RD
SUITE 430
CHESTERFIELD, MO 63017
CHIEFFI, MARGARET J A
6744 CLAYTON RD
ST LOUIS, MO 63117
CHINSKY, MURRAY IM
500 NORTHWEST PLAZA STE
ST ANN, MO 63074
CHIPONGIAN, RAUL A OPH
1672 FOXLEIGH COURT
ST LOUIS, MO 63131
CHIRINO, OCTAVIO R OBG
533 COUCH AVE
KIRKWOOD, MO 63122
CHISHTI, M ISHAQ OPH
6651 CHIPPEWA
ST LOUIS, MO 63109
CHIU, TAI-MAO AN
6420 CLAYTON RD
ST LOUIS, MO 63117
CHO, KYU S ORS
456 N NEW BALLAS
SUITE 369
ST LOUIS, MO 63141
CHOI, SAE R GS
157 SOUTH GRAESER RD
ST LOUIS, MO 63141
CHOI, SEI YOUNG P
1650 BOONSLICK RD
ST CHARLES, MO 63301
CHOU, YEN PING IM
ROBT KOCH HOSP
4101 KOCH RD
ST LOUIS, MO 63129
CHUA, STEVEN IM
1125 GRAHAM ROAD
FLORISSANT, MO 63031
CHUNDURI, KRISHNA R AN
660 S EUCLID AVE
ST LOUIS, MO 63110
CHUNG, KAP-EUN GS
205 WEST MAIN
FREDERICKTOWN, MO 63645
CHUSAK, RICHARD B PS
3009 NO BALLAS RD
SUITE 216
ST LOUIS, MO 63131
CIAPCIAK, STANLEY J GP
1502 ST LOUIS AVE
ST LOUIS, MO 63106
CLARK, RICHARD E TS
4989 BARNES HOSP PLAZA
SUITE 3108 QUEENY TOWER
ST LOUIS, MO 63110
CLASEMAN, WILMA W PH
3237 LONGFELLOW BLVD
ST LOUIS, MO 63104
CLAYCOMB, GERALD K DR
5535 DELMAR BLVD
ST LOUIS, MO 63112

CLAYTON, JILL M AN
47 CLERMONT LANE
ST LOUIS, MO 63124
CLENDENIN, WILLIAM W P
1034 S BRENTWOOD
ST LOUIS, MO 63141
COBB, MILTON L AN
BARNES HOSP PLAZA
ST LOUIS, MO 63110
COBEN, LAWRENCE A N
660 S EUCLID BOX 8111
ST LOUIS, MO 63110
CODD, JOHN E GS
1325 S GRAND BLVD
ST LOUIS, MO 63104
CODILLA, SOSTENES G GS
1610 CAMP JACKSON RD
CAHOKIA, IL 62206
COHEN, EDWARD R
311 SUNWAY LANE
ST LOUIS, MO 63141
COHEN, FRANK IM
300 S GRAND
ST LOUIS, MO 63103
COHEN, HILLARD K IM
500 NORTHWEST PLAZA STE
ST ANN, MO 63074
COHEN, ROBERT S OBG
2821 BALLAS RD STE 255
ST LOUIS, MO 63131
COKRHAME, JACK IM
1125 GRAHAM RD
FLORISSANT, MO 63031
COLE, HARRY O NS
5505 DELMAR BLVD
ST LOUIS, MO 63112
COLEMAN, DONALD L AM
800 N LINDBERGH BLVD
ST. LOUIS, MO 63141
COLOSI, NICHOLAS J OPH
1031 BELLEVUE
SUITE #250
ST LOUIS, MO 63117
COMAS, MANUEL R OBG
514 TENBY TERR
MANCHESTER, MO 63011
COMENS, PHILLIP IM
6651 CHIPPEWA
ST LOUIS, MO 63109
COMENS, RUTH C AN
8826 WOODFOX
ST LOUIS, MO 63127
COMETA, TERESITA A FP
607 N GRAND
ST LOUIS, MO 63103
CONDY, ANGELA G EM
615 S NEW BALLAS RD
ST LOUIS, MO 63141
CONE, ALFRED J OTO
2323 MANOR GROVE DR
CHESTERFIELD, MO 63017
CONNORS, JOHN P CD
216 S KINGSHIGHWAY
ST LOUIS, MO 63110
CONRAD, MARSHALL B ORS
100 N EUCLID AVE
ST LOUIS, MO 63108
CONVERY, PAUL B IM
3915 WATSON
ST LOUIS, MO 63139
COOK, MARVIN R
10010 KENNERLY RD
ST LOUIS, MO 63128
COOKSEY, JON D CD
1035 BELLEVUE AVE
SUITE #500
ST LOUIS, MO 63117
COOPER, JAMES F GS
12255 DEPAUL DR
SUITE 830
BRIDGETON, MO 63044
COOPER, THEODORE CD
THE UPJOHN COMPANY
KALAMAZOO, MI 49001
COOPER, THOMAS J PTH
10010 KENNERLY
ST LOUIS, MO 63128
COOPER, THOS P FM
970 EXECUTIVE PARKWAY
SUITE 101
ST LOUIS, MO 63141
COPP, RALPH IM
4989 BARNES QUEENY TOWE
ST LOUIS, MO 63110
CORDAY, ROBT I CHP
141 N MERAMEC
SUITE 205
ST LOUIS, MO 63105
CORDER, JAMES C IM
1537 N BERRY RD
ST LOUIS, MO 63119
CORONADO, MARIO A OBG
10004 KENNERLY RD
ST LOUIS, MO 63128
CORRY, JAMES M PDA
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110

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CORVALAN, JUAN C P
SUITE 1180
1034 SOUTH BRENTWOOD
ST LOUIS, MO 63117
CORWIN, KENNETH D PS
777 S NEW BALLAS RD STE
ST LOUIS, MO 63141
COSTA, DOMINIC V GS
1212 S GRAND AVE
ST LOUIS, MO 63104
COSTELLO, CYRIL J GE
621 S NEW BALLAS RD
ST LOUIS, MO 63141
COSTELLO, JOHN B IM
1325 S GRAND
ST LOUIS, MO 63104
COSTELLO, JOS P IM
950 FRANCIS PL
ST LOUIS, MO 63105
COSTEN, WILLIAM S ORS
42 MIDDLESEX DR
ST LOUIS, MO 63144
COSTRINO, JOS A OM
2425 N BROADWAY
ST LOUIS, MO 63102
COVA, RENO R NS
12255 DE PAUL DRIVE SUI
BRIDGETON, MO 63044
COVERT, RICHARD A FP
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
COX, MARY E P
1034 S BRENTWOOD
ST LOUIS, MO 63117
COXE, WM S NS
BARNES HOSP PLAZA
ST LOUIS, MO 63110
COZART, DUANE E IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
CRADOCK, THOMAS V GS
1401 SOUTH GRAND
ST LOUIS, MO 63104
CRAFTS, DAVID NS
1325 S GRAND
ST LOUIS, MO 63104
CRAIG, ALAN G P
1035 BELLEVUE STE 202
ST LOUIS, MO 63117
CRAIG, ROBERT B JR PTH
1448 OAK BLUFF LANE
ST LOUIS MO 63122
CRALLE, ROBERT V GS
12255 DE PAUL DR SUITE
BRIDGETON, MO 63044
CRAVENS, ELIZABETH M EM
1109 HOLLY BERRY
BALLWIN, MO 63011
CRAVER, JEFFREY L PTH
7545 HOOVER AVE
ST LOUIS, MO 63117
CRAWFORD-TROTTER, KATH J GP
35 N CENTRAL
ST LOUIS, MO 63105
CREPPS, LOUIS F R
44 DURHAM DRIVE
WASHINGTON, MO 63090
CRESPIN, STEPHEN R IM
4 MC KNIGHT LANE
ST LOUIS, MO 63124
CRESPO, HORACIO T FP
245 LITCHFORD CT
ST LOUIS, MO 63141
CRESPO, REMEDIOS R FP
245 LITCHFORD CT
ST LOUIS, MO 63141
CRISCIONE, JAMES R TS
4273 FLORA PLACE
ST LOUIS, MO 63110
CRISCIONE, JAMES R JR FM
635 GASLITE
ST LOUIS, MO 63122
CRISCIONE, JAMES S AN
1837 GRASSY RIDGE
KIRKWOOD, MO 63122
CUBILLO, ENRIQUE DR
730 MIDDLE POLO DR
ST LOUIS, MO 63105
CUDDIHEE, ROBERT F IM
621 S NEW BALLAS RD
ST LOUIS, MO 63141
CUENTO, ORLENDO A GS
1040 N MASON RD
SUITE 207
ST LOUIS, MO 63141
CULLUM, ALBERT G OTO
MED ARTS BLDG
MIDDLESBORO, KY 40965
CUNNINGHAM, EDWIN J IM
164 W CLAYTON RD
BALLWIN, MO 63011
CUSUMANO, JOSEPH V US
36 LYNNBROOK RD
ST LOUIS, MO 63131
CUTLER, HAROLD M OTO
141 N MERAMEC
ST LOUIS, MO 63105
CUTLER, HARRY U
4511 FOREST PARK BLVD
ST LOUIS, MO 63108
CZERRINSKI, EDWARD W IM
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
DAAKE, JOHN W GS
48 PORTLAND PL
ST LOUIS, MO 63108
DAAKE, JOHN W JR US
1035 BELLEVUE
SUITE 314
ST LOUIS, MO 63117
DAGARTZIKAS, A K OBG
12902 TUNDRA
TOWN & COUNTRY, MO 63131
DAHM, CHAS H OBG
1009 JULLANA DR
BALLWIN, MO 63011
DALTON, ARTHUR R GS
35 N CENTRAL AVE
CLAYTON, MO 63105
DAMES, RICHARD J IM
15 YORK DR
ST LOUIS, MO 63117
DANDAMUDI, BABU R FP
6500 CHIPPEWA
SUITE 116
ST LOUIS, MO 63109
DANFORTH, WM H IM
WASHINGTON UNIVERSITY
ST LOUIS, MO 63130
DANGANAN, CANDIDO S AN
2206 VIEWROYAL DR
ST LOUIS, MO 63131
DANIELS, JOHN S IM
4989 BARNES HOSPITAL PLAZA
SUITE #17312
ST. LOUIS, MO 63110
DANIS, PETER G PD
2821 N BALLAS RD
ST LOUIS, MO 63131
DANIS, RICHARD K GS
1401 S GRAND
ST LOUIS, MO 63104
DANKNER, ARNOLD IM
1570 WOODLAKE DR
CHESTERFIELD, MO 63017
DAS, ARABINDA N
20 SOUTH THIRD
BELLEVILLE, IL 62221
DASH, IRA AN
6500 CHIPPEWA
ST LOUIS, MO 63109
DASH, UDAYA N ORS
6500 CHIPPEWA ST
ST LOUIS, MO 63109
DAVIDSON, JOHN A IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63117
DAVIDSON, MORRIS OTO
35 N CENTRAL AVE
CLAYTON, MO 63105
DAVIS, CHARLES L OBG
11036 RIDGECORDE
ST LOUIS, MO 63141
DAVIS, GENE L DR
11133 DUNN RD
ST LOUIS, MO 63136
DAVIS, MARTIN W IM
911 S BRENTWOOD BLVD
CLAYTON, MO 63105
DAVIS, MARY A P
456 N NEW BALLAS RD STE
ST LOUIS, MO 63141
DAVIS, SHELDON OTO
11155 DUNN RD
ST LOUIS, MO 63136
DE CASTRO, EDWINO T AN
3933 SOUTH BROADWAY
ST LOUIS, MO 63118
DE GUERRE, RONALD K U
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
DE JESUS CARBONEL, A AN
615 S NEW BALLAS RD
ST LOUIS, MO 63141
DE LEON, ROMUALDO V IM
525 JEFFCO BLVD
ARNOLD, MO 63010
DE SILVA, ANANDA PD
1125 GRAHAM RD
SUITE 15
FLORISSANT, MO 63031
DE UNGRIA, PABLO C OBG
6744 CLAYTON ROAD
ST LOUIS, MO 63117
DE VERA, ANSON E AN
5085 REYNOSA DR
ST LOUIS, MO 63128
DEBNAM, JAMES W R
391 MADEWOOD LANE
CHESTERFIELD, MO 63017
DEETHS, TONY M DR
135 LADUEMONT DR
CREVE COEUR, MO 63141
DEHNER, JONATHAN B R
26 LORENZO LANE LA DUE
ST LOUIS, MO 63124
DEITCHMAN, ROBT B P
225 SO MERAMEC
SUITE 108
CLAYTON, MO 63105
DEL CARMEN, JAIME J P
13372 WINDBROOKE LANE
ST LOUIS, MO 63141
DEL ROSARIO, HORACIO O O
3809 UNION BLVD
ST LOUIS, MO 63104
DEL VALLE, FERNANDO P
777 S NEW BALLAS STE W
ST LOUIS, MO 63141
DELCAU, CAREY M G
3535 S JEFFERSON
ST LOUIS, MO 63118
DENES, BELA U
GENITAL URINARY SURG., LTD
11155 DUNN ROAD
ST LOUIS, MO 63136
DENK, ALAN F G
3017 FALLBROOK
ST LOUIS, MO 63131
DESHPANDE, V IM
15345 COUNTRY RIDGE DR
CHESTERFIELD, MO 63017
DESTOUET, JUDY R
WASHINGTON UNIVERSITY
510 SO KINGSHIGHWAY
ST LOUIS, MO 63110
DEUTCH, MAX F
29 WILLOW HILL RD
ST LOUIS, MO 63124
DEVINE, JOHN B PU
85 WILLMORE RD
ST LOUIS, MO 63109
DEW, THOS A PU
5505 DELMAR
ST LOUIS, MO 63112
DEWALD, PAUL A P
4524 FOREST PARK BLVD
ST LOUIS, MO 63108
DEWEIN, EDWARD G P
621 S NEW BALLAS RD RM
ST LOUIS, MO 63141
DI CECCO, CHARLES J IM
2545 DERHAKE RD
FLORISSANT, MO 63033
DI LEO, SENATRO W OB
34 RIDGETOP
ST LOUIS, MO 63117
DI PASCO, DONALD I IM
#8 PORTLAND DR
ST LOUIS, MO 63131
DICK, EARL P
7314 FOREST HAVEN ESTATES
ST LOUIS, MO 63123
DICK, MARY M P
141 NO MERAMEC AVE
SUITE 205
ST LOUIS, MO 63105
DICKLER, DONALD I AN
833 AUDUBON DR
ST LOUIS, MO 63105
DIEHR, MAURICE A G
1530 BEDFORD CT
APT 14
CHESTERFIELD, MO 63017
DIEMER, PETER A R
12302 IRONSTONE
ST LOUIS, MO 63131
DIERBERG, DALE E O
2753 AUTUMN RUN CT
CHESTERFIELD, MO 63017
DIESTELHORST, JAMES A IM
14377 WOODLAKE DR
CHESTERFIELD, MO 63017
DILLARD, BURT M
ST JOS HOSP MED BLDG
533 COUCH AVE
ST LOUIS MO 63122
DMYTRYK, EUGENE T
621 S NEW BALLAS RD
ST LOUIS, MO 63141
DODGE, PHILIP R N
DEPT OF PEDIATRICS WASH
500 S KINGSHIGHWAY
ST LOUIS, MO 63178
DOTSY, PHILIP P IM
325 N KIRKWOOD RD
KIRKWOOD, MO 63122
DOISY, ROBT A
126 E JEFFERSON AVE
ST LOUIS, MO 63122
DOLAN, JOHN T
3915 WATSON RD
ST LOUIS, MO 63109
DONALDSON, ROBT C
915 N GRAND BLVD
ST LOUIS, MO 63106
DONATI, ROBT M N
VET ADMIN HOSP NUCL MED
ST LOUIS, MO 63106
DONLEY, LEO F
2425 N BROADWAY
ST LOUIS, MO 63102
DONOVAN, JOHN F
10007 KENNERLY RD
ST LOUIS, MO 63128
DONOVAN, THOS J
911 S BRENTWOOD BLVD
SUITE 101
ST LOUIS, MO 63105

OLEY, JOS M N
SUITE 129W
777 S NEW BALLAS RD
ST LOUIS, MO 63141
RTON, ROBT K IM
911 S BRENTWOOD BLVD
ST LOUIS, MO 63105
UGHERTY, CHARLES H PD
3535 S JEFFERSON AVE
ST LOUIS, MO 63118
WELL, GEO H P
3009 N BALLAS RD
SUITE #110
ST LOUIS, MO 63131
YLE, CHAS R GS
9053 MONMOUTH DR.
ST LOUIS, MO 63117
ACE, CHAS C GS
19 E LOCKWOOD AVE
ST LOUIS, MO 63119
AKE, WM L PTH
MISSOURI BAPTIST HOSP
3015 N BALLAS RD
ST LOUIS, MO 63131
ATLER, STANLEY OBG
7225 CLAYTON RD
CLAYTON, MO 63105
ESCHER, EMMETT B OM
35 N CENTRAL
ST LOUIS, MO 63105
EWS, ROBT C OPH
211 N MERAMEC
ST LOUIS, MO 63105
FY, NORMAN W IM
950 FRANCIS PL STE 205
CLAYTON, MO 63105
EYER, CARL J OBG
45 GLEN ROAD
WEBSTER GROVES, MO 63119
OZDA, JOSEPH CD
12255 DEPAUL DR
BRIDGETON, MO 63044
UCK, NORMAN S OTO
35 N CENTRAL AVE
CLAYTON, MO 63105
BUQUE, THEODORE J GS
1035 BELLEVUE
ST LOUIS, MO 63117
EMLER, ROBT H OBG
12166 BIG BEND BLVD
KIRKWOOD, MO 63122
FFY, FRANCIS G AN
8116 UNIVERSITY DR
ST LOUIS, MO 63105
GAS, HENRY C FP
3737 N KINGSHIGHWAY BLVD
ST LOUIS, MO 63115
GGAN, JOHN J OBG
533 COUCH AVENUE
ST LOUIS, MO 63122
MADAG, VIRGILIO P PTH
3015 N BALLAS RD
ST LOUIS, MO 63131
NN, ROBERT C JR NS
ST LOUIS UNIV MED CTR
1325 S GRAND
ST LOUIS, MO 63104
REL, JUSTIN H OBG
1325 S GRAND
ST LOUIS, MO 63104
RR, JON W PTH
2204 WELSCH INDUSTRIAL CT
ST LOUIS, MO 63141
SEK, DENNIS A ORS
12615 OLD TESSON RD
ST LOUIS, MO 63128
ALL, JOSEPH M D
2821 N BALLAS
TOWN & COUNTRY, MO 63131
YER, JAMES G IM
663 TUXEDO
ST LOUIS, MO 63119
ER, JOSEPH C IM
1540 WOODLAKE DR.
CHESTERFIELD, MO 63017
R, DALLAS J IM
3915 WATSON RD
ST LOUIS, MO 63109
INDZEV, PENCO T FP
3601 S JEFFERSON AVE
ST LOUIS, MO 63118
HEMPATI, RAMA G IM
6304 S GRAND BLVD
ST LOUIS, MO 63111
HEMPATI, UMA R OBG
14499 LADUE RD
CHESTERFIELD, MO 63017
ES, JOS W PS
4910 FOREST PARK
ST LOUIS, MO 63108
LETON, MARK D R
1148 WEIDMAN RD
MANCHESTER, MO 63011
IN, KENNETH M FP
615 S NEW BALLAS
ST LOUIS, MO 63141
P, RALPH K ORS
RR 2
MEXICO, MO 65265

EBEL, EUGENE H PD
11115 NEW HALLS FERRY
FLORISSANT, MO 63033
EBERLE, VINCENT L OBG
141 N MERAMEC AVE
ST LOUIS, MO 63105
ECK, BIRKLE IM
1819 CAMBERLY ROAD
ST LOUIS, MO 63131
ECKER, DESIDER B FP
P O BOX 448
PACIFIC, MO 63069
ECKERT, CLARENCE T GS
2295 GULF OF MEXICO DR
LONGBOAT KEY, FL 33548
EDELE, EUGENE H FP
3890 FEDERER PL
ST LOUIS, MO 63116
EDELMAN, ALAN H DR
2821 N BALLAS RD
ST LOUIS, MO 63131
EDWARDS, JAMES F CHP
522 N NEW BALLAS RD
ST LOUIS, MO 63141
EDWARDS, JOS C CD
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
EGAN, ROBT C GS
1034 S BRENTWOOD BLVD
SUITE 776
ST LOUIS, MO 63117
EGAN, THOS F R
9852 NORTHBRIDGE
ST LOUIS, MO 63124
EGBEDINA, TAIWO GS
8189 NORMANDY TRACE DR
ST LOUIS, MO 63121
EGGLESTON, HARRY C OPH
621 S NEW BALLAS RD
ST LOUIS, MO 63141
EGGLESTON, THOS F OPH
621 S NEW BALLAS
ST LOUIS, MO 63141
EHRLICH, CARL F OTO
777 S NEW BALLAS RD
ST LOUIS, MO 63141
EIDELMAN, JACK R P
141 N MERAMEC
ST LOUIS, MO 63105
EIMER, CHAS E OTO
6 BEL AIR DRIVE
SIKESTON, MO 63801
EISEN, ARTHUR Z D
BARNES HOSP PLAZA
ST LOUIS, MO 63110
EKUNNO, JOSIAH O OBG
BOX 5340
ST LOUIS, MO 63115
ELCOCK, DEVERA M FP
615 S NEW BALLAS RD
CREVE COEUR, MO 63141
ELDER, DONALD G FP
615 S NEW BALLAS RD
ST LOUIS, MO 63141
ELIASSON, SVEN G N
660 S EUCLID
ST LOUIS, MO 63110
ELLER, CHAS H PH
250 E ALAMEDA
SANTA FE, NM 87501
ELLERSIECK, DOROTHY M FP
10437 EWELL
ST LOUIS, MO 63137
ELLSASSER, JAMES C ORS
1034 BRENTWOOD BLVD
ST LOUIS, MO 63117
EMERAN, GEORGES J U
600 NORTH UNION
ST LOUIS, MO 63108
EMERSON, DANIEL P FM
615 S NEW BALLAS RD
CREVE COUER, MO 63141
EMERSON, REYNOLDS L FP
1695 BRENTWOOD BLVD S
BRENTWOOD, MO 63144
EMERSON, WILLIAM A IM
11150 DUNN RD STE 105
ST LOUIS, MO 63136
EPSTEIN, JAMES M IM
ST LOUIS MEDICAL CLINIC
3009 NO BALLAS RD
ST LOUIS, MO 63131
ERNST, EDWIN C R
14377 WOODLAKE DR
SUITE 110
CHESTERFIELD, MO 63017
ERNST, EDWIN C III DR
12457 BALWYCK
ST LOUIS, MO 63131
ERNST, JOS G IM
325 N KIRKWOOD RD
KIRKWOOD, MO 63122
ERNST, RICHARD F R
14377 WOODLAKE DR
SUITE 110
CHESTERFIELD, MO 63017
ERNST, ROLAND P R
12327 CREEKHAVEN
ST LOUIS, MO 63131

ESCOBEDO, BOLIVAR M OBG
13975 MANCHESTER ROAD
MANCHESTER, MO 63011
ESCOFFERY, RICHARD F OPH
EAST PAVILION SUITE 17413
4949 BARNES HOSPITAL
ST LOUIS, MO 63110
ESSLINGER, ARTHUR T OBG
816 IDLEWILD WAY
SIESTA KEY
SARASOTA, FL 33581
ESTRADA, CORAZON D IM
11155 DUNN RD
ROOM 104
ST LOUIS, MO 63136
ESTRADA, JESUS I FP
1610 MASON RD
ST LOUIS, MO 63131
ETHEREDGE, EDWARD E GS
WASH UNIV DEPT SURG
ST LOUIS, MO 63110
ETIENNE, ROBT B IM
6000 WESTMINSTER
ST LOUIS, MO 63112
ETO, JACKSON K PD
6651 CHIPPEWA ST
ST LOUIS, MO 63109
EVANS, LAWRENCE G ORS
1325 S GRAND
ST LOUIS, MO 63104
EVENS, RONALD G R
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
EVERSOLL, NORTON J OS
1455 TYLER ST
HOLLYWOOD, FL 33020
EXARHOU, KLARK GS
777 S NEW BALLAS ROAD
ST LOUIS, MO 63141
EYERMAN, EDWARD L N
1035 BELLEVUE AVE
ST LOUIS, MO 63117
FABIAN, LEONARD W AN
660 S EUCLID
ST LOUIS, MO 63110
FABITO, DANIEL C GS
3009 N BALLAS RD
SUITE 202
ST LOUIS, MO 63131
FABITO, MELINDA A IM
P O BOX 446
#8 VILLAGE CENTER
EUREKA, MO 63025
FAIR, WM R U
4960 AUDUBON
ST LOUIS, MO 63110
FALLON, RICHARD H GS
4949 BARNES HOSP PLAZA
STE 16306
ST LOUIS, MO 63110
FARBERMAN, ELLIOTT PD
437 FALAISE DR
CREVE COEUR, MO 63141
FARRELL, JOHN S IM
12255 DEPAUL DR
BRIDGETON, MO 63044
FARRELL, ROBT J IM
9060 SARANAC DR
ST LOUIS, MO 63117
FARZANA, FARIDA P
6 WEDGEWOOD LN
ST LOUIS, MO 63141
FATHMAN, ANTHONY E U
224 S WOODS MILL RD
SUITE 510
CHESTERFIELD, MO 63017
FEHRENBACHER, KIM A FP
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
FEIBEL, ROBT M OPH
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
FEIT, ROBERT M U
6500 CHIPPEWA ST
ST LOUIS, MO 63109
FELDMAN, DAVID IM
11501 LAKESHORE DR
ST LOUIS, MO 63141
FELDMAN, MARK R OBG
2021 N BALLAS RD SUITE 205
ST LOUIS, MO 63131
FELICIANO, WILFRIDO C PS
1245 GRAHAM RD
FLORISSANT, MO 63031
FELIX, ROBT H P
10501 INDIAN WELLS DR
SUN CITY, AZ 85351
FELLER, HAROLD H FP
NORTHLAND MD BLD ST 201
ST LOUIS, MO 63136
FELLHAUER, CARL M ORS
1035 BELLEVUE
RICHMOND HEIGHT, MO 63117
FELTS, JAMES A AN
45 BERRY RD PARK
ST LOUIS, MO 63122
FERGUSON, THOS B TS
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110

FERRENDELLI, JAMES A N
660 S EUCLID
ST LOUIS, MO 63110

FERRIGNI, FILIPPO J IM
THIRD STREET & FIRST CAPITOL
ST. CHARLES, MO 63301

FERRIS, CHARLES W JR PTH
31 REINKE RD
ELLISVILLE, MO 63011

FERRY, RICHARD J N
141 MERAMEC ST
CLAYTON, MO 63105

FIGUEROA, EDDUYN CHP
12300 OLIVE ST.
SUITE 309
ST LOUIS, MO 63141

FIGUEROA, ELISEO O IM
11155 DUNN RD
ST LOUIS, MO 63136

FINGERHOOD, MARVIN G IM
1195 CIMARON DR
ST LOUIS, MO 63132

FINGERT, HYMAN H P
4542 MARYLAND AVE.
ST LOUIS, MO 63108

FINK, LEROY GS
11155 DUNN RD STE 206
ST LOUIS, MO 63136

FINKEL, BARNEY W FP
6508 W FLORISSANT
ST LOUIS, MO 63136

FINN, MURRAY F P
1035 BELLEVUE STE 202
ST LOUIS, MO 63117

FINNEGAN, JOS V IM
1035 BELLEVUE ST
ST LOUIS, MO 63117

FIORDELISI, ROCCO J GS
700 HAVERFORD RD
ST LOUIS, MO 63124

FISCHBEIN, LEWIS C RHU
4949 BARNES HOSP PLAZA
SUITE #16422
ST LOUIS, MO 63110

FISCHER, JOHN R P
12255 DE PAUL DR
BRIDGETON, MO 63044

FISCHER, ROBERT IM
533 COUCH AVE
ST LOUIS, MO 63122

FISH, RICHARD G OPH
4370 FOREST DE VILLE DR
ST LOUIS, MO 63129

FISH, VIRGIL O GS
2500 TOWN & COUNTRY LA
ST LOUIS, MO 63131

FISHER, LINDA IM
5505 DELMAR SUITE 503
ST LOUIS, MO 63112

FISHMAN, JOHN J AN
3015 N BALLAS RD
ST LOUIS, MO 63131

FISHMAN, NORMAN END
777 S NEW BALLAS RD
ST LOUIS, MO 63141

FITZGERALD, LEO P OBG
BETHESDA HOME
9645 BIG BEND
ST LOUIS, MO 63122

FITZGERALD, WM T IM
3915 WATSON RD
ST LOUIS, MO 63109

FIVIAN, GERALD J OPH
2821 N BALLAS RD
ST LOUIS, MO 63131

FLANCE, ISRAEL PUD
4652 MARYLAND
ST LOUIS, MO 63108

FLANIGAN, GEO D OBG
100 N EUCLID AVE
SUITE 902
ST LOUIS, MO 63108

FLEISHMAN, ALFRED IM
APT#104 920 GUELBRETH LANE
ST LOUIS, MO 63141

FLETES, JAMES W FP
7270 NATURAL BRIDGE AVE
ST LOUIS, MO 63121

FLETCHER, EDWARD R PD
7781 RAVENSBRIDGE APT A-
ST LOUIS, MO 63119

FLORENCE, KERRY E FP
ST JOHN S MERCY MED CTR
615 S NEW BALLAS RD
ST LOUIS, MO 63141

FLORES, JHONSON E AN
[illegible] COUNTRY MANOR
ST LOUIS, MO 63141

FLORES VEGA, CARLOS H IM
3915 WATSON RD
ST LOUIS, MO 63109

FLORO, KENNETH L JR GS
6431 LYNBROOK
AFFTON, MO 63123

FLORO, MARIANO N GS
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033

FLOTTE, BERNARD H
6 VILLA LANE
FLORISSANT, MO 63033

FLOTTE, SYLVESTER A IM
466 RUNNYMEDE DR
ST LOUIS, MO 63141

FLUG, ERIC J US
533 COUCH
KIRKWOOD, MO 63122

FLYNN, EDWARD F IM
9730 E WATSON RD
ST LOUIS, MO 63126

FLYNN, JOHN T FP
3211 S GRAND BLVD
ST LOUIS, MO 63118

FLYNN, JOS E GS
621 S NEW BALLAS
ST LOUIS, MO 63141

FLYNN, THOMAS T P
10007 KENNERLY ROAD
ST LOUIS, MO 63128

FOGARTY, WM M IM
3915 WATSON RD
ST LOUIS, MO 63109

FORD, LEE T ORS
WASHINGTON UNIVERSITY
4960 AUDUBON
ST LOUIS, MO 63110

FORD, THOMAS E OPH
APT 602
316 N GREEN BAY RD.
WAUKEGAN, IL 60085

FORSEN, JAMES A GS
14443 BANTRY
VILLAGE GREEN APT #19
CHESTERFIELD, MO 63017

FORSMAN, WALDO W FP
9436 GRAVOIS
ST LOUIS, MO 63123

FORSYTH, BRUCE T IM
100 N EUCLID
ST LOUIS, MO 63108

FORTI, JOHN J FP
1434 CHAMBERS
ST LOUIS, MO 63135

FOX, LEON J ORS
903 SO WARSON RD
ST LOUIS, MO 63124

FOX, ROBT E IM
6744 CLAYTON RD
ST LOUIS, MO 63117

FRANCISCO, DOMINIC S R
777 S NEW BALLAS RD
ST LOUIS, MO 63141

FRANCOIS, RODRIGUE J OPH
3520 LACLEDE #410E
ST LOUIS, MO 63103

FRANKLIN, HAROLD A CD
16 HAMPTON VILLAGE PLAZ
ST LOUIS, MO 63109

FRANKLIN, MAX S CD
585 COEUR DE ROYALE
ST LOUIS, MO 63141

FRASER, DANL M TS
1035 BELLEVUE AVE
ST LOUIS, MO 63117

FRAWLEY, THOS F IM
OFF GRAD MED EDUCATION
615 S NEW BALLAS RD
ST LOUIS, MO 63141

FREDERICK, RAYMOND O GS
SUITE #305
4511 FOREST PARK
ST LOUIS, MO 63108

FREEDMAN, RUTH S OPH
10287 CLAYTON ROAD
ST LOUIS, MO 63124

FREEL, JAMES H OBG
1325 S GRAND BLVD
ST LOUIS, MO 63104

FREEMAN, DAVID M OPH
7316 KINGSBURY
ST LOUIS, MO 63130

FREIMAN, SEYMOUR M OBG
1034 S BRENTWOOD #616
ST LOUIS, MO 63117

FREUND, SAML I CRS
2821 NO BALLAS
SUITE 205
ST LOUIS, MO 63131

FRIEDMAN, IRA J PD
2428 WOODSON RD
OVERLAND, MO 63114

FRIEDMAN, PAUL L AN
7332 CORNELL
ST LOUIS, MO 63130

FRIEDMAN, ROBT H PD
2821 N BALLAS RD
ST LOUIS, MO 63131

FRIEDMAN, WILLIAM H OTO
1325 SOUTH GRAND BLVD
2ND FLOOR
ST LOUIS, MO 63104

FRIEDRICH, ANTHONY P EM
12303 DEPAUL DR
HAZELWOOD, MO 63044

FRIEDRICH, ERNST R OBG
4911 BARNES HOSP PLAZA
ST LOUIS, MO 63110

FRIES, ARMAND D OTO
11 W GEYER LN
ST LOUIS, MO 63131

FRIES, JOHN W R
10010 KENNERLY ROAD
ST LOUIS, MO 63128

FRISKEL, ARTHUR K IM
7500 DEVONSHIRE
ST LOUIS, MO 63119

FRUMSON, GUY H OR
12255 DE PAUL DR
BRIDGETON, MO 63044

FRY, ROBERT D GS
456 N NEW BALLAS RD
ST LOUIS, MO 63141

FRYER, MINOT P PS
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110

FUENTES, FE P OP
5203 CHIPPEWA
ST LOUIS, MO 63109

FUJITA, MILTON T CH
12161 POINT OAK RD
ST LOUIS, MO 63131

FULEIHAN, FARID M U
615 S NEW BALLAS
ST LOUIS, MO 63141

FUNSCH, ROBERT E OR
6744 CLAYTON RD
ST LOUIS, MO 63117

FURLA, GUS J FP
57 BROADVIEW DR
ST LOUIS, MO 63105

GADO, MOKHTAR H N
510 S KINGSHIGHWAY
ST LOUIS, MO 63110

GAGLIARDO, JOSEPH P
141 N MERAMEC RM 303
CLAYTON, MO 63105

GALAKATOS, ANDREW E OR
777 S NEW BALLAS ROAD
ST LOUIS, MO 63141

GALE, ARTHUR H IM
2428 WOODSON RD
OVERLAND, MO 63114

GALL, IRA C OB
777 S NEW BALLAS RD
ST LOUIS, MO 63141

GALSTER, ALLEN D GS
660 S EUCLID
ST LOUIS, MO 63110

GANDLMAYR, JACOB M FP
1040 N MASON RD
ST LOUIS, MO 63141

GANSLOSER, WILBERT M P
950 FRANICS PL
CLAYTON, MO 63105

GANTNER, GEO E PTH
1325 S GRAND BLVD
ST LOUIS, MO 63104

GANTZ, JOHN A R
10 MUIRFIELD LANE
ST LOUIS, MO 63141

GARCIA, FLORENTINA U P
2601 NORTH WHITTIER ST
ST LOUIS, MO 63113

GARCIA-FERRER, EDUARDO A P
777 S NEW BALLAS
ST LOUIS, MO 63141

GARFINKEL, BERNARD T IM
522 N NEW BALLAS RD
ST LOUIS, MO 63141

GARRETT, JOHN IM
4570 AUDUBON ST
ST LOUIS, MO 63110

GARRIGA, FRANCISCO J IM
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033

GAVINI, RAJENDRA R G
6500 CHIPPEWA STREET
SUITE 125
ST LOUIS, MO 63109

GAW CO HU, JOHNNY IM
3661A DELOR ST
ST LOUIS, MO 63116

GEARHART, DAVID I O
456 NO NEW BALLAS RD
ST LOUIS, MO 63141

GEARHART, WILBUR H P
3009 N BALLAS RD
SUITE 110
ST LOUIS, MO 63131

GEDNEY, WM B IM
806 MERAMEC STATION RD
VALLEY PARK, MO 63088

GEEKIE, ROBERT C III IM
653 S NEW BALLAS RD
APT B2D
ST LOUIS, MO 63141

GEISE, AUGUST W
5505 DELMAR
ST LOUIS, MO 63112

GEISSE, GUILLERMO R
DEPT OF RADIOLOGY
6150 OAKLAND
ST LOUIS, MO 63139

GELLMAN, ELLIOT F
456 N NEW BALLAS RD
ST LOUIS, MO 63141

GENNAOUI, JAD M DR
12660 LAMPLIGHTER SQ
ST LOUIS, MO 63128

ENTSCH, KENNETH W CD
ST LOUIS MEDICAL CLINIC
3009 N BALLAS RD
ST LOUIS, MO 63131

EORGE, PHILIP G ORS
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63105

ERMUTH, FREDERICK G PTH
615 S NEW BALLAS RD
ST LOUIS, MO 63141

EROWIN, LANCE GS
9408 W MILTON
ST LOUIS, MO 63114

ERST, ALOYSIUS C PD
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033

ERST, JAMES PD
11115 NEW HALLS FERRY RD
FLORISSANT, MO 63033

OSH, NELLIE CD
GRANT MEDICAL CLINIC
114 NO TAYLOR AVE
ST LOUIS, MO 63108

ESELMAN, RALPH V IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017

LDEN, JEROME J ORS
456 N. NEW BALLAS RD
SUITE 369
ST LOUIS, MO 63141

LPIN, DORIS C CHP
7452 AMHERST AVE
ST LOUIS, MO 63130

LULA, LOUIS A DR
250 DIELMAN RD
ST LOUIS, MO 63124

NSBURG, JORDAN H ORS
456 N NEW BALLAS ROAD
SUITE 369
ST LOUIS, MO 63141

NTHER, JAMES W JR IM
3535 S JEFFERSON
SUITE 205
ST LOUIS, MO 63118

RAPARNONT, BANG-ORN OBG
CHRISTIAN HOSP NORTHWES
1725 GRAHAM RD
FLORISSANT, MO 63031

RAPARNONT, PRABHAK IM
12845 GLENBERNIE
ST LOUIS, MO 63141

RI, P G SHANKAR TR
ST LOUIS UNIV DEPT OF ONC
1325 S GRAND BLVD
ST LOUIS, MO 63104

DNEY, JOHN H OTO
100 N EUCLID AVE-STE 70
ST LOUIS, MO 63108

ZER, HARVEY S DR
MALLINCRODT INST OF RAD
ST LOUIS, MO 63110

INES, MICHAEL H PD
12 MERAMEC HGTS SHOPPIN
ARNOLD, MO 63010

OGOVAC, S VIC ORS
SUITE #1360
12255 DEPAUL DR
BRIDGETON, MO 63044

DE, ALBERT J GS
3606 GRAVOIS AVE
ST LOUIS, MO 63116

BEL, JOAN M AN
5128 JAMIESON
ST LOUIS, MO 63119

D, JONATHAN A NS
12255 DE PAUL DRIVE
SUITE 830
BRIDGETON, MO 63044

DEARN, ALVIN GS
514 COEUR DE ROYALE DR
#405
ST LOUIS, MO 63141

DGABER, ALBERTO IM
8631 DELMAR #303
ST LOUIS, MO 63124

DMAN, ARNOLD M IM
522 N NEW BALLAS RD
ST LOUIS, MO 63141

DMAN, GORDON M OBG
77 WESTPORT PLAZA
SUITE 265
ST LOUIS, MO 63141

DMAN, HYMEN J D
4511 FOREST PARK
ST LOUIS, MO 63108

MAN, MELVIN I IM
631 DELMAR
T LOUIS, MO 63124

RING, DAVID PDC
00 S KINGSHIGHWAY
T LOUIS, MO 63110

RING, SIDNEY NS
60 S EUCLID
T LOUIS, MO 63110

STEIN, BENJAMIN IM
428 WOODSON RD
T LOUIS, MO 63114

GOLDSTEIN, MARCY A PS
950 FRANCIS PLACE
CLAYTON, MO 63105

GOLLUB, SAML W PD
539 COEUR DE ROYALE
ST LOUIS, MO 63141

GOLTSCHMAN, JOHN P OPH
14377 WOODLAKE DR
CHESTERFIELD, MO 63017

GOMEZ, CESAR A GS
3009 NORTH BALLAS RD
SUITE 114
ST LOUIS, MO 63131

GOODMAN, NATHANIEL FP
#9 SCARSDALE LANE
ST LOUIS, MO 63117

GORDON, JAMES M OPH
11155 DUNN RD
ST LOUIS, MO 63136

GOREN, MARSHALL P CLP
4954 W PINE #402
ST LOUIS, MO 63108

GORLA, WAYNE O IM
27 HARNEYWOLD
ST LOUIS, MO 63136

GOULD, RONALD J GE
1035 BELLEVUE AVE
RICHMOND HTS , MO 63017

GRADY, RONALD K CD
224 S WOODS MILL RD. #370
CHESTERFIELD, MO 63017

GRAFF, RALPH J GS
P O BOX 14109
ST LOUIS, MO 63177

GRAGNANI, JOHN A PM
615 S NEW BALLAS RD
ST LOUIS, MO 63141

GRAND, M GILBERT OPH
EAST PAVILION SUITE 17413
4949 BARNES HOSP. PLAZA
ST LOUIS, MO 63110

GRANETO, JOS A FP
5521 S BROADWAY
ST LOUIS, MO 63111

GRANT, JOHN M IM
GRANT MEDICAL CLINIC
114 N TAYLOR AVE
ST LOUIS, MO 63108

GRANT, NEVILLE IM
GRANT MEDICAL CLINIC
114 N TAYLOR AVE
ST LOUIS, MO 63108

GRANT, SAML B IM
96 ABERDEEN PL
ST LOUIS, MO 63105

GRAUL, WALTER P ORS
4944 LINDELL BLVD
ST LOUIS, MO 63108

GRAVISS, EDWARD R R
1465 S GRAND
ST LOUIS, MO 63104

GRAY, GARY J IM
911 S BRENTWOOD
ST LOUIS, MO 63105

GREBEL, CLEMENT B IM
16 HAMPTON VILLAGE
ST LOUIS, MO 63109

GREEN, MORTON R OPH
111 W LINCOLN
BELLEVILLE, IL 62221

GREEN, WM R FP
7200 MANCHESTER
ST LOUIS, MO 63143

GREENMAN, MARSHALL B PD
777 S NEW BALLAS RD
ST LOUIS, MO 63141

GREGORY, JOHN G U
1325 S GRAND
ST LOUIS, MO 63104

GRESICK, ROBT J PTH
11 COACH-N-FOUR
ST LOUIS, MO 63131

GRIEGE, CHAS W CD
493 ST FRANCOIS
FLORISSANT, MO 63031

GRIGGS, JAMES Y GS
1034 S BRENTWOOD
SUITE #776
ST LOUIS, MO 63117

GRONEMEYER, PAMELIA S PTH
#7 HADDINGTON CT
ST LOUIS, MO 63105

GRUBB, ROBT L NS
BARNES HOSP NEUROSURGER
ST LOUIS, MO 63110

GRUNDMANN, WM H ORS
12028 ROSEVALLEY LANE
ST LOUIS, MO 63138

GUILLEN, DIOSDADA T PD
2601 N WHITTIER
ST LOUIS, MO 63113

GULICK, C R OBG
1034 S BRENTWOOD
ST LOUIS, MO 63117

GULICK, CHARLES R OBG
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117

GUMMELS, BELMONT B FP
718 FLORENCE AVE
ST LOUIS, MO 63119

GUNAWARDHANA, H P P
1740 EDMAR LANE
ST LOUIS, MO 63138

GUNN, WALTER T FP
4617 DAHILA AVE
ST LOUIS, MO 63116

GUPTA, JITENDRA K IM
14377 WOODLAKE #101
CHESTERFIELD, MO 63017

GUPTA, NARAYAN C FP
6331 DEVONSHIRE
ST LOUIS, MO 63109

GURSAHANI, MAN MOHAN U
1034 S BRENTWOOD BLVD
STE 854
ST LOUIS, MO 63117

GURSAHANI, PUSHPA PD
#1 HUNTLEIGH DOWNS
ST LOUIS, MO 63131

GUZE, SAML B P
4940 AUDUBON AVE
ST LOUIS, MO 63110

HOECKER, JAY L PD
3535 S JEFFERSON
ST LOUIS, MO 63118

HABERT, EDWARD R R
10010 KENNERLY
ST LOUIS, MO 63128

HADDOCK, JAMES N P
777 S NEW BALLAS RD
ST LOUIS, MO 63141

HAFFNER, HEINZ F GS
3 LINDWORTH
ST LOUIS, MO 63124

HAGAN, DANL J R
621 S NEW BALLAS RD
ST LOUIS, MO 63141

HAGEBUSCH, OMER E PTH
15201 OLIVE ST RD APT 3
CHESTERFIELD, MO 63017

HAGEMANN, PAUL O IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017

HAGEN, DUANE Q P
621 S NEW BALLAS RD
ST LOUIS, MO 63141

HAGEN, GARRETT A IM
1035 BELLEVUE
RICHMOND HGHTS, MO 63117

HAHN, YORAM OBG
1035 BELLEVUE AVENUE
SUITE 318
ST LOUIS, MO 63117

HALFORD, RICHARD PS
1040 N MASON RD STE 109
ST LOUIS, MO 63141

HALL, EUGENE W FP
116A S FLORISSANT RD
FERGUSON, MO 63135

HALL, LEE A OBG
3716 HULEN PARK
FORT WORTH, TX 76109

HALL, PRESTON C FP
39 WOODCREST DR
ST LOUIS, MO 63124

HALL, ROBT A FP
43 WASHINGTON TERR
ST LOUIS, MO 63112

HALL, WM K D
P O BOX 661
ST CHARLES, MO 63301

HALLEY, R H U
11155 DUNN RD STE 214
ST LOUIS, MO 63136

HALLINGER, EARL S D
2209 KIPP COURT
ST LOUIS CO , MO 63136

HALLORAN, MARK J IM
621 S NEW BALLAS RD STE
ST LOUIS, MO 63141

HALVERSON, JOHN D GS
4960 AUDUBON
ST LOUIS, MO 63110

HAMILTON, CALDWELL K PD
11745 OLIVE ST RD
CREVE COEUR, MO 63141

HAMILTON, EUGENE G OBG
BELLEVUE BLDG
1035 BELLEVUE
ST LOUIS, MO 63117

HAMILTON, JOHN A OBG
1035 BELLEVUE AVENUE
ST LOUIS, MO 63117

HAMILTON, THOMAS R ID
2205 E 5TH ST
DULUTH, MN 55812

HAMILTON, WILLIAM P CD
615 S NEW BALLAS ROAD
ST LOUIS, MO 63141

HAMMERMAN, ALBERT M R
216 S KINGSHIGHWAY
ST LOUIS, MO 63110

HAMMERMAN, MARC R IM
660 S EUCLID AVE
ST LOUIS, MO 63110

HAMMOND, D W ORS
533 COUCH AVE
SUITE 220
ST LOUIS, MO 63122

HAMMOND, DAVID T CD
ST LOUIS MEDICAL CLINIC
3009 N BALLS RD
ST LOUIS, MO 63131
HAMPTON, STANLEY F A
6744 CLAYTON ROAD
ST LOUIS, MO 63117
HANAWAY, JOS N
ROOM 510 100 N EUCLID
ST LOUIS, MO 63108
HANES, LILY A TR
1323 SOUTHEAST 17TH ST
FT LAUDERDALE, FL 33316
HANLEY, THOMAS P OBG
1935 PARKRIDGE
ST LOUIS, MO 63144
HANNA, FAYEZ A FP
3394 MC KELVEY
BRIDGETON, MO 63044
HANSEL, FRENCH K A
515 TIMBERWYCK
ST LOUIS, MO 63131
HANSER, THEODORE H GS
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
HANSON, PAULL R AM
1111 WOODS MILL RD
BALLWIN, MO 63011
HANTMAN, STEPHEN L IM
1125 GRAHAM RD
FLORISSANT, MO 63031
HANTZ, OSCAR OTO
1265 GRAHAM RD
FLORISSANT, MO 63031
HARDIN, WM B N
3009 NO BALLAS RD
SUITE 209
ST LOUIS, MO 63131
HARDY, DAVID A U
911 S BRENTWOOD BLVD
ST LOUIS, MO 63105
HARDY, DAVID C R
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
HARDY, GUERDAN OTO
35 N CENTRAL AVE
CLAYTON, MO 63105
HARDY, PATRICK J IM
1125 GRAHMA RD
FLORISSANT, MO 63031
HARELL, ALEX ORS
8 MEDIC CTR 1040 MASON
ST LOUIS, MO 63141
HARFORD, CARL G IM
WASH U SCH MED-INT MED-
ST LOUIS, MO 63110
HARKINS, WM B OTO
275 UNION BLVD
APT 920
ST LOUIS, MO 63108
HARPER, FLEMING B GS
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
HARRISON, LEE B IM
44 RIDGEMOOR DR
CLAYTON, MO 63105
HARRISON, RICHARD L P
9705 WATSON RD
CRESTWOOD, MO 63126
HARSHMAN, DAVID M CD
SUITE 319 3535 S JEFFERSON
ST LOUIS MO 63118
HART, WILLIAM OPH
660 SOUTH EUCLID
ST LOUIS, MO 63110
HARTMAN, PAUL T P
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
HARTMAN, RICHARD A OBG
4021 CONNECTICUT
ST LOUIS, MO 63116
HARTNETT, THOS D P
11 S MERAMEC
ST LOUIS, MO 63105
HARTSTEIN, JACK OPH
8631 DELMAR BLVD
ST LOUIS, MO 63124
HARTWIG, JOHN A FP
12541 POSTGROVE DR
ST LOUIS, MO 63141
HARWELL, JAMES L PD
35 N CENTRAL
ST LOUIS MO 63105
HASENMUELLER, JAMES J GS
10004 KENNERLY RD
SUITE 110
ST LOUIS MO 63128
HATFALVI, BELA I AN
15 MIDDLESEX DR
ST LOUIS, MO 63144
HAWATMEH, IBRAHIM S U
1325 S GRAND
ST LOUIS MO 63104
HAWK, BRAY O GS
16 HAMPTON VILLAGE
ST LOUIS MO 63109
HAWK, THOMAS M ORS
6500 CHIPPEWA
ST LOUIS, MO 63109

HAWKER, WM D OBG
77 WILLMORE RD
ST LOUIS, MO 63109
HAWKINS, GEO L NS
504 OAKWOOD
ST LOUIS, MO 63119
HAYEK, WESLEY E GS
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033
HAYNES, JAMES W PTH
135 W ADAMS
KIRKWOOD, MO 63122
HAZAN, JOSEPH OBG
2428 WOODSON
ST LOUIS, MO 63114
HEADRICK, JOHN A IM
11133 DUNN RD
ST LOUIS, MO 63136
HEGDE, KORGI V IM
3915 WATSON RD
ST LOUIS, MO 63109
HEINS, JAMES N IM
ST LOUIS MEDICAL CLINIC
3009 NO BALLAS RD
ST LOUIS, MO 63131
HELBING, EDWARD J OS
250 ALAMEDA #105
SANTA FE, NM 87501
HELLER, RANDALL L JR OBG
1034 BRENTWOOD SUITE 946
ST LOUIS, MO 63117
HELLWEG, RAYMOND W PD
3220 PARKER RD
FLORISSANT, MO 63033
HENDIN, AARON IM
3917 BRANNON
ST LOUIS, MO 63109
HENRY, CATHERINE G CD
1768 GOLDENHORN CT
MARYLAND HGHTS, MO 63043
HENSCHEL, EUGENE V IM
55 BROADVIEW DR
ST LOUIS, MO 63105
HENSELMEIER, DALE M EP
12255 DEPAUL DRIVE
SUITE 600
BRIDGETON, MO 63044
HER, KYU S PD
624 HAVERFORD RD
ST LOUIS, MO 63124
HERJANIC, MARIJAN P
1420 GRATTAN
ST LOUIS, MO 63104
HERMAN, MORRIS GS
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
HERNANDEZ, SALVADOR R ORS
6500 CHIPPEWA AVE
ST LOUIS, MO 63109
HERRIFORD, MERLE B U
2715 N UNION
ST LOUIS, MO 63113
HERSHEY, FALLS B GS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
HERTEL, RONALD C ORS
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63105
HERZOG, GODOFREDO M OBG
77 WESTPORT PLAZA
SUITE 265
ST LOUIS, MO 63141
HESKER, ALBERT E R
2821 N BALLAS RD STE C-
ST LOUIS, MO 63131
HEUSLER, ANTON E P
12255 DEPAUL DRIVE
SUITE 330
BRIDGETON, MO 63044
HEUTEL, LEE R OM
7200 MANCHESTER
ST LOUIS, MO 63143
HIATT, BARRY A P
889 S BRENTWOOD
SUITE 204
ST LOUIS, MO 63105
HIATT, H C IM
7937 BIG BEND BLVD
ST LOUIS, MO 63119
HICKEY, JAMES L OBG
621 S NEW BALLAS RD
ST LOUIS, MO 63141
HICKS, ROBT S P
777 S NEW BALLAS RD STE
ST LOUIS, MO 63141
HIGGINS, PHILIP C OBG
1 CLAYCHESTER
ST LOUIS, MO 63131
HIGHTOWER, HARRY G P
4521 FOREST PARK
ST LOUIS MO 63108
HILBERT, PAUL H FP
2905 CHEROKEE ST
ST LOUIS, MO 63118
HILDRETH, HOWARD F OPH
15022 CLAYMOOR CT
CHESTERFIELD, MO 63017
HILL, CHESTER L IM
725 SWARTHMORE LANE
UNIVERSITY CITY, MO 63130

HILL, M ROBERT I
6150 OAKLAND AVE
ST LOUIS, MO 63139
HILL, XACADENE A F
4067 DR MARTIN LUTHER KING
ST LOUIS, MO 63113
HILLMAN, RICHARD E P
P. O BOX 14871
ST LOUIS, MO 63178
HINRICHS, JAMES H I
12255 DEPAUL DR
BRIDGETON, MO 63044
HIRONIMUS, JOHN E D
6651 CHIPPEWA ST STE 20
ST LOUIS, MO 63109
HIRSCH, JOHN D G
216 S KINGSHIGHWAY
ST LOUIS, MO 63110
HIRSHBERG, GARY E A
660 SOUTH EUCLID AVE
ST LOUIS, MO 63110
HOBBS, JOHN E O
25 WOODENCREST DR
ST LOUIS, MO 63124
HODAPP, ELIZABETH A O
660 S. EUCLID
ST LOUIS, MO 63108
HOEHN, JOHN P G
12255 DE PAUL DR SUITE
BRIDGETON, MO 63044
HOFER, JEFFREY S I
645 S NEW BALLAS RD
APT 3-B
ST LOUIS, MO 63141
HOFFMAN, ROBERT J P
11115 NEW HALLS FERRY
FLORISSANT, MO 63033
HOFFMAN, WILLIAM F N
12255 DE PAUL DR
SUITE 830
BRIDGETON, MO 63044
HOFFMANN, AUGUSTIN D I
4920 MCCAUSLAND
ST LOUIS, MO 63109
HOFFMANN, RONALD E O
12255 DE PAUL DR
BRIDGETON, MO 63044
HOFSTATTER, LEOPOLD N
768 GLEN VISTA DR
ST LOUIS, MO 63122
HOGAN, CORNELIUS E I
3654 S GRAND BLVD
ST LOUIS, MO 63118
HOGAN, JOHN R I
1303 WEBSTER PATH DR
ST LOUIS, MO 63119
HOGAN, PATRICK A N
1034 S BRENTWOOD
ST LOUIS, MO 63117
HOGAN, PATRICK C O
10004 KENNERLY RD
ST LOUIS, MO 63128
HOLBROOK, CHAS K
11655 W FLORISSANT
FLORISSANT, MO 63033
HOLDER, BARRETT K
ORTHOPEDICS ASSOCIATES
3009 NORTH BALLAS RD
ST LOUIS, MO 63131
HOLEMON, R E P
3009 N BALLAS RD
SUITE #110
ST LOUIS, MO 63131
HOLLO, VENCEL W GS
911 SOUTH BRENTWOOD
ST LOUIS, MO 63105
HOLLOCHER, RICHARD L
777 S NEW BALLAS RD
CREVE COEUR, MO 63141
HOLLOMAN, WALTER G
11155 DUNN RD
SUITE 203
ST LOUIS MO 63136
HOLSCHER, EDWARD C
234 W JACKSON RD
WEBSTER GROVES, MO 6311
HOLT, EARL P
5505 DELMAR BLVD
ST LOUIS, MO 63112
HOLT, WM F F
4524 FOREST PARK BLVD
ST LOUIS, MO 63108
HOLTMANN, BAERBEL
4960 AUDUBON
ST LOUIS MO 63110
HOLTZ, ALAN S
12166 BIG BEND RD
KIRKWOOD, MO 63122
HOLTZ, SUMNER
5535 DELMAR
ST LOUIS, MO 63112
HOOSERMAN, BRUCE J
12255 DE PAUL DR
BRIDGETON MO 63044
HOOVER, BERNARD L IM
3915 WATSON RD
ST LOUIS MO 631
HORAN, DAVID W FM
141-C W WOODBINE RD
ST LOUIS, MO 63122

RENSTEIN, SIMON N
456 N NEW BALLAS RD
ST LOUIS, MO 63141
RNER, JOHN L IM
GRANT MEDICAL CLINIC
114 N TAYLOR
ST LOUIS, MO 63108
RWITZ, IRWIN B ORS
456 N NEW BALLAS
SUITE 369
ST LOUIS, MO 63141
WE, ALBERT L IM
300 S GRAND
ST LOUIS, MO 63103
WE, LOUIS F FP
1136 RIDGELYNN
ST LOUIS, MO 63124
Y, EDWARD J OPH
3655 VISTA
ST LOUIS, MO 63122
U, CHING F IM
1704 PARIS DR
GODFREY, IL 62035
ANG, SHI H NS
12 RAMSGATE DR
ST LOUIS, MO 63132
CK, FRANK F GP
P. O. BOX 1386
SAFFORD, AZ 85546
CK, RICHARD F IM
2821 N BALLAS
ST LOUIS, MO 63131
GENS, RICHARD W P
777 S NEW BALLAS RD-STE
ST LOUIS, MO 63141
FAKER, WILLIAM H PS
224 S. WOODS MILL RD
CHESTERFIELD, MO 63017
GINS, ALBERT M IM
6651 CHIPPEWA ST
ST LOUIS, MO 63109
HES, CHAS P N
WASHINGTON UNIV DEPT-NE
ST LOUIS, MO 63130
HES, ROBT G OM
11745 OLIVE BLVD
ST LOUIS, MO 63141
BERT, BERNARD IM
8112 DELMAR BLVD
ST LOUIS, MO 63130
MEL, ANTON J OPH
5203 CHIPPEWA ST
ST LOUIS, MO 63109
MEL, WM C R
1924 MUIR WOODS
ST LOUIS, MO 63131
LETH, FRANK E OBG
12615 OLD TESSON RD
T LOUIS, MO 63128
EY, JOSEPH J GS
615 S NEW BALLAS RD
ST LOUIS, MO 63141
CHINSON, JAMES H IM
ST LOUIS MEDICAL CLINIC
3009 N. BALLAS RD
ST LOUIS, MO 63131
CHINSON, WILLIAM DR
2821 N BALLAS RD
ST LOUIS, MO 63131
N, ANNA P
318 OLIVE
MILLAR/SCHAEF/HOFFMAN
ST LOUIS, MO 63101
A, SHIGEMASA AN
325 S GRAND
ST LOUIS, MO 63104
N, MAX M IM
915 WATSON RD
T LOUIS, MO 63109
N, WM M P
035 BELLEVUE STE 202
T LOUIS, MO 63117
DA, YASUO OBG
744 CLAYTON RD
T LOUIS, MO 63117
M. MOHAMMED GS
000 HILLSBORO RD
IGH RIDGE, MO 63049
RMAN, MICHAEL J OPH
56 NORTH NEW BALLAS RD
T LOUIS, MO 63141
ER, GEO W IM
505 DELMAR SUITE 310
T LOUIS, MO 63112
E, AKIRA AN
989 BARNES HOSP PL
T LOUIS, MO 63110
RLIAN, GRANT FP
040 N MASON RD
T LOUIS, MO 63141
ONSKI, RAYMOND C R
JUNGERMAN CR #L-4
PETERS, MO 63376
ON, DARWIN C OBG
0 N EUCLID AVE
LOUIS, MO 63108
, KARL A NS
1 S NEW BALLAS RD
LOUIS, MO 63141

JACOBS, CHAS C OTO
43 MUIRFIELD LN
ST LOUIS, MO 63141
JACOBS, FREDERICK A PD
10929 ABBOTT AVE
SUN CITY, AZ 85351
JAIN, SAVITRI G IM
533 COUCH AVE
ST LOUIS, MO 63122
JAIN, SUMER C AN
1868 BEAVER RIDGE CT
CHESTERFIELD, MO 63017
JANNEY, JAMES G IM
950 FRANCIS PL
CLAYTON, MO 63105
JARVIS, CATHY C IM
15951 THROWBRIDGE RD
CHESTERFIELD, MO 63017
JATALA, IJAZ A P
100 N EUCLID AVE.
SUITE 305
ST LOUIS, MO 63108
JAUDON, JOS C PD
55 S GORE
ST LOUIS, MO 63119
JEAN, J T IM
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
JENKINS, JAMES J AN
216 SO KINGSHIGHWAY
ST LOUIS, MO 63110
JENNY, ARTHUR B NS
344 JEFFERSON RD
ST LOUIS, MO 63119
JENSEN, JOSHUA E GS
11155 DUNN RD STE 208
ST LOUIS, MO 63136
JENSEN, JOSHUA E II GS
CHRISTIAN HOSPITAL NO
11155 DUNN RD
ST LOUIS, MO 63136
JICK, SIDNEY CD
10287 CLAYTON RD
ST LOUIS, MO 63124
JOFFE, WM S OPH
211 N MERAMEC AVE
CLAYTON, MO 63105
JOFTUS, MORRIS IM
522 N. NEW BALLAS
SUITE 280
ST LOUIS, MO 63141
JOHANS, THOMAS G AN
621 S NEW BALLAS
ST LOUIS, MO 63141
JOHNSON, CHAS J PS
1035 BELLEVUE
ST LOUIS, MO 63117
JOHNSON, FRANK E GS
1325 S. GRAND BLVD
ST LOUIS, MO 63104
JOHNSON, MICHAEL K OBG
4949 BARNES HOSPITAL
SUITE #16310
ST LOUIS, MO 63110
JOHNSON, MITCHELL D GS
40 N FLORISSANT RD
FERGUSON, MO 63135
JOHNSON, ROY FP
15201 OLIVE BLVD
APT. 417
CHESTERFIELD, MO 63017
JOHNSON, TOM A FP
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
JOHNSTON, GLEN P OPH
EAST PAVILION SUITE 17413
4949 BARNES HOSP PLAZA
ST LOUIS, MO 63110
JOHNSTONE, JOHN T IM
206 W ARGONNE
KIRKWOOD, MO 63122
JONES, DOROTHY J PD
4566 SCOTT AVE
ST LOUIS, MO 63110
JONES, GREY OBG
P O BOX 222
BLAWENBURG, NJ 08504
JONES, JAMES D AN
BARNES HOSPITAL PLAZA
ST LOUIS, MO 63110
JONES, JAMES H OPH
1035 BELLEVUE AVE
ST LOUIS, MO 63117
JONES, OTEY S FP
2010 LONGFELLOW
ST LOUIS, MO 63104
JONES, RICHARD A IM
777 S NEW BALLAS RD STE
ST LOUIS, MO 63141
JONES, SARA T AN
7347 MARYLAND
ST LOUIS, MO 63130
JONES, SCOTT D P
800 BROMFIELD TERRACE
MANCHESTER, MO 63011
JONES, VICTOR T R
950 FRANCIS PL
ST LOUIS, MO 63105

JORDAN, WALTER R FP
18012 DESERT GLEN DR
SUN CITY WEST, AZ 85372
JOSEPH, HAROLD J IM
828 CELLA RD
ST LOUIS, MO 63124
JOSEPH, MARY G IM
1755 SO. GRAND BLVD
ST. LOUIS, MO 63104
JOSLYN, HAROLD L GE
65 CLERMONT LANE
ST LOUIS, MO 63124
JOST, CHAS A FP
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033
JOTTE, RICHARD F FP
10300 ST CHARLES ROCK R
ST ANN, MO 63074
JUDD, DONALD R TS
950 FRANCIS PL
ST LOUIS, MO 63105
JULIEN, RENE GS
7401 STATE
EAST ST LOUIS, IL 62203
KABIR, MOHAMMED A P
10000 HIGHWAY 366
ST LOUIS, MO 63126
KAHN, LAWRENCE I PD
4566 SCOTT AVE
ST LOUIS, MO 63110
KAIRUZ, BARTOLOME C FP
10004 KENNERLY RD
ST LOUIS, MO 63128
KAISER, GEO C GS
1325 S GRAND BLVD
ST LOUIS, MO 63104
KAMAKAS, NICHOLAS C PD
1245 GRAHAM RD
FLORISSANT, MO 63031
KAMENETZKY, STEPHEN A OPH
4910 FOREST PARK
SUITE 300
ST LOUIS, MO 63108
KAMINSKI, DONALD L GS
1325 S GRAND BLVD
ST LOUIS, MO 63104
KAMINSKY, WATSON W GS
1212 S GRAND BLVD
ST LOUIS, MO 63117
KANG, CHANG H * GP
3616 S. BROADWAY
ST. LOUIS, MO 63118
KANG, JUAN PTH
ALLEN MEDICAL LAB
2204 WELSCH INDUSTRIAL
ST LOUIS, MO 63141
KANG, JUNG W FP
942 WYNHAVEN
MANCHESTER, MO 63011
KANNEGIESSER, HARTMUT IM
300 S GRAND
ST LOUIS, MO 63103
KANTOR, OWEN IM
4949 BARNES HOSPITAL PLAZA
SUITE #16422
ST LOUIS, MO 63110
KAO, MING-SHIAN IM
4911 BARNES HOSP PLAZA
ST LOUIS, MO 63110
KAPLAN, ALEX H P
4524 FOREST PARK BLVD
ST LOUIS, MO 63108
KAPPESSER, NETAJEAN G FP
55 FAIR OAKS DR
ST LOUIS, MO 63124
KAPPESSER, ROLAND C AN
55 FAIR OAKS
ST LOUIS, MO 63124
KARDESCH, MILTON IM
9293 WATSON RD
ST LOUIS, MO 63126
KARL, MICHAEL M IM
4652 MARYLAND AVE
ST LOUIS, MO 63108
KARR, ROBERT W IM
7049 MARYLAND
ST LOUIS, MO 63130
KARSH, ROBT S IM
2428 WOODSON RD
ST LOUIS, MO 63114
KASINADHUNI, UDAYSHANKER AN
1465 S GRAND BLVD
ST LOUIS, MO 63104
KASKIE, CLIFFORD R OBG
12211 CARBERRY PLACE
ST LOUIS, MO 63131
KASS, MICHAEL A OPH
660 S EUCLID
ST LOUIS, MO 63110
KATSANTONIS, GEORGE OTO
6651 CHIPPEWA
ST LOUIS, MO 63109
KATTAKAYAM, MARY M PD
615 SOUTH NEW BALLAS RD
ST LOUIS, MO 63141
KAUFMAN, ROBT L IM
456 N NEW BALLAS RD
SUITE 299
ST LOUIS, MO 63141

KAUF, CHANDRA S IM
1125 GRAHAM RD
FLORISSANT, MO 63031
KAYES, JACK OPH
211 N MERAMEC
ST LOUIS, MO 63105
KAZA, RAMARAO U
6500 CHIPPEWA
#1 SUITE 116
ST LOUIS, MO 63109
KEATING, JAMES P PD
ST LOUIS CHILDRENS HOSP
P O BOX 14871
ST LOUIS, MO 63178
KEFFLER, KARL I FP
7306 WISE AVE
ST LOUIS, MO 63117
KEITHLY, DENNIS J FP
121 HIDDEN CREEK DR
ELLISVILLE, MO 63011
KELLER, LOUIS D
950 FRANCIS PL RM 305
CLAYTON, MO 63105
KELLER, MAURICE J PD
9049 CLAYTON RD
ST LOUIS MO 63117
KELLETT, JOHN G FP
243 KENORA CT
WEBSTER GROVES, MO 63119
KELLY, JOHN J IM
ST LOUIS MEDICAL CLINIC
3009 NO BALLAS RD
ST LOUIS MO 63131
KELLY, R E OM
819 LOCUST ST
ST LOUIS, MO 63101
KELTNER, RAYMOND M GS
1325 S GRAND
ST LOUIS, MO 63104
KENDIG, JOHN H NS
5505 DELMAR BLVD-RM 509
ST LOUIS, MO 63112
KENDIS, JOS B IM
777 S NEW BALLAS RD
ST LOUIS, MO 63141
KENNEY, JOHN D ORS
12615 OLD TESSON ROAD
ST LOUIS, MO 63128
KENNINGTON, L J FP
14382 WOODLAKE DR
CHESTERFIELD, MO 63017
KESSEL, JAMES W OBG
2 JACKLYNN CT
ST LOUIS, MO 63132
KESSLER, SHELDON PD
12255 DEPAUL DR SUITE 490
DEPAUL PROF BLDG
BRIDGETON, MO 63044
KESSLER, WILLIAM J OPH
3655 VISTA
ST LOUIS, MO 63110
KEYES, E L GS
900 S HANLEY RD
ST LOUIS, MO 63105
KHAN, ABDUL G PD
JEFFERSON COUNTY MED AR
ROUTE 1-SUITE 6
ARNOLD, MO 63010
KHAN, ABDUL R P
9730 E WATSON RD
ST LOUIS, MO 63126
KHAN, ALTAF A GE
12166 BIG BEND BLVD
ST LOUIS, MO 63122
KHODADOUST, KAVOUS PTH
1606 GRATTAN
ST LOUIS, MO 63104
KIELMOVITCH, IZAK H OTO
1146 OLIVE VILLAGE CT
ST LOUIS MO 63132
KIENZLE, EDWARD FP
P O BOX 356
BONNE TERRE, MO 63628
KILKER, DONALD F FP
7520 NATURAL BRIDGE RD
NORMANDY, MO 63121
KILO, CHAS IM
777 S NEW BALLAS RD
ST LOUIS, MO 63141
KIM, STANLEY W R
777 S NEW BALLAS
ST LOUIS, MO 63141
KIM, WILLIAM W AN
1325 S GRAND BLVD
ST LOUIS MO 63104
KIMELMAN, NATHAN IM
6744 CLAYTON RD
ST LOUIS, MO 63117
KING, EUSTACE E FP
111 CHURCH ST
FERGUSON, MO 63135
KING, FRANCIS I FP
11030 MANCHESTER RD
ST LOUIS, MO 63122
KING, JAMES P PD
4311 BAYLESS RD
AFFTON MO 63123
KING, JOHN V JR PUD
925 CLARKSON RD
CHESTERFIELD, MO 63017

KING, JOHN V SR FP
615 S NEW BALLAS RD
ST LOUIS, MO 63131
KING, MORRIS K IM
660 S EUCLID
ST LOUIS, MO 63110
KINGSLAND, ROBERT C IM
6150 OAKLAND
ST LOUIS, MO 63139
KINSELLA, EDWARD D GE
1035 BELLEVUE
RICHMOND HEIGHT, MO 63117
KINSELLA, MARIA S IM
22 CONWAY LANE
ST LOUIS, MO 63124
KINSELLA, PETER W IM
1035 BELLEVUE
ST LOUIS, MO 63117
KINSELLA, RALPH A IM
6305 WESTMINSTER PL
ST LOUIS, MO 63130
KIPNIS, DAVID M IM
660 S EUCLID
ST LOUIS, MO 63110
KISSANE, JOHN M PTH
WASHINGTON U SCH MED
ST LOUIS, MO 63110
KISTLER, WALTER D IM
SUITE 113 MED W BLDG
950 FRANCIS PLACE
CLAYTON, MO 63105
KISTNER, WM F PUD
621 S NEW BALLAS RD
ST LOUIS, MO 63141
KITCHEN, ALICE D P
1221 SOUTH GRAND AVE
ST LOUIS, MO 63104
KITOWSKI, THEODORE L R
2040 YALE APT 9
MAPLEWOOD, MO 63143
KIYANCLAR, M EMIN AN
DEPT OF ANES WASH UNIV
660 S EUCLID
ST LOUIS, MO 63110
KLEIN, ADELBERT H FP
34 N RIDGEWOOD AVE
ARCADIA, MI 49613
KLEIN, ARNOLD G FP
14164 TRAILTOP DR
CHESTERFIELD, MO 63017
KLEIN, JACOB OBG
777 SO NEW BALLAS RD
ST LOUIS, MO 63141
KLEIN, SAUL I U
456 N NEW BALLAS RD STE
ST LOUIS, MO 63141
KLIEFOTH, JAMES A GS
10004 KENNERLY RD
ST LOUIS, MO 63128
KLIPPEL, BERNHARDT W GS
52 FAIR OAKS
ST LOUIS, MO 63124
KLOECKER, RICHARD J GS
12255 DEPAUL SUITE 160
BRIDGETON, MO 63044
KLOECKER, ROBT P OBG
3009 N BALLAS RD
ST LOUIS, MO 63131
KLUZAK, THOMAS R OBG
615 S NEW BALLAS
ST LOUIS, MO 63141
KNEAL, ELLSWORTH PD
725 S SKINKER BLVD
ST LOUIS, MO 63105
KNIGHT, FRANKLIN P GS
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033
KNIGHT, JAMES W GS
2715 UNION BLVD
ST LOUIS, MO 63113
KNIGHT, WM A GP
1035 BELLEVUE AVE
ST LOUIS, MO 63117
KNOCK, HENRY F PD
325 N KIRKWOOD RD
KIRKWOOD, MO 63122
KNOPF, HARRY F OPH
211 N MERAMEC ST
CLAYTON, MO 63105
KNOWLES, ROBT R P
1034 SOUTH BRENTWOOD BL
ST LOUIS, MO 63117
KNOWLTON, NORMAN P IM
14 OAKLEIGH LN
ST LOUIS, MO 63124
KODNER, IRA J CRS
216 S KINGSHIGHWAY
ST LOUIS, MO 63110
KOEHLER, GEO A IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
KOEHLER, ROBERT F DR
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
KOENIG, MARVIN I OPH
11115 NEW HALLS FERRY R
FLORISSANT, MO 63033
KOERNER, KENNETH A PD
2821 N BALLAS RD
ST LOUIS, MO 63131

KOHLER, KATHRYN D K
4358 HUMBER CIR
ST. LOUIS, MO 63129
KOHLER, LOUIS H
100 N EUCLID AVE
ST LOUIS, MO 63108
KOLKER, ALLAN E
660 S EUCLID AVE
ST LOUIS, MO 63110
KOLODNY, ROBT C
4910 FOREST PARK BLVD
ST LOUIS, MO 63108
KONZELMAN, JOHN A
C/O GORDON F WEBB
P O BOX 11445
ST LOUIS, MO 63105
KOPELSON, JEFFREY C
391 B NEWBURY DR
BALLWIN, MO 63011
KOPEN, DAN F
ST JOHN'S MERCY MED CTR
615 S NEW BALLAS RD
ST LOUIS, MO 63141
KOPMAN, ERCUMENT A
BARNES HOSP
ST LOUIS, MO 63110
KORENBLAT, PHILLIP E
10287 CLAYTON RD
ST LOUIS, MO 63124
KORN, ROBT I
456 N NEW BALLAS
ST LOUIS, MO 63141
KOSURI, LALITHA
12352 OAK HOLLOW DR
ST LOUIS, MO 63141
KOTNER, LAWRENCE M
1040 N MASON RD.
ST LOUIS, MO 63141
KOTNER, LAWRENCE M JR
270 BELLINGTON LANE
ST LOUIS, MO 63141
KOVAC, S R
777 S NEW BALLAS RD
ST LOUIS, MO 63141
KOWERT, EDWARD H
100 N EUCLID ST
ST LOUIS, MO 63108
KRAEGER, RUSSELL R
SUITE #171 533 COUCH AVE
ST LOUIS, MO 63122
KRAETSCH, ROBERT E
4949 BARNES HOSPITAL PLAZA
SUITE #16422
ST LOUIS, MO 63110
KRAIN, SAMUEL
141 NORTH MERAMEC
ST LOUIS, MO 63105
KRANER, JUSTIN F
2821 N BALLAS RD
SUITE 205
ST LOUIS, MO 63131
KRANTMAN, HERBERT J
777 S NEW BALLAS RD
ST LOUIS, MO 63141
KRAUS, FREDERICK T
ST JOHNS MERCY MED CTR-
ST LOUIS, MO 63141
KRAUSE, GEO L
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
KRECHEL, SUSAN L
13881 TESSON FERRY RD
ST LOUIS, MO 63128
KREISMAN, JEROLD J PC
522 N NEW BALLAS RD.
ST LOUIS, MO 63141
KRETCHMAR, ALAN P
2821 N BALLAS
ST LOUIS, MO 63131
KREWET, FRANK A
1700 S SECOND ST
ST LOUIS, MO 63177
KRISHNASAMY, BHARATH K
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
KROEGER, GEO B
621 S NEW BALLAS RD
ST LOUIS, MO 63141
KROJANKER, ROLF J
6651 CHIPPEWA
ST LOUIS, MO 63109
KROMER, CHAS J
9101 APPOMATTOX CT
ST LOUIS, MO 63123
KRONEMER, NORTON S
12660 LAMPLIGHTER SQUAR
ST LOUIS, MO 63128
KRUMMENACHER, THOMAS K
DEPT OF OPTHALMOLOGY
3660 VISTA
ST LOUIS, MO 63110
KRUPIN, THEODORE
660 S EUCLID
ST LOUIS, MO 63110
KUCZER, ARNOLD G
4511 FOREST PARK
ST LOUIS, MO 63108
KUEBEL, RICHARD I
615 S NEW BALLAS RD
ST LOUIS, MO 63141

JEBRICH, THOS C 111 CHURCH ST FERGUSON, MO 63135	FP
JHLMAN, RALPH F 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	IM
JHLMAN, ROBERT E 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	ORS
JHN, NOBUKO O 6951 DELMAR BLVD ST LOUIS, MO 63130	IM
JLAK, GARY 621 S NEW BALLAS ST LOUIS, MO 63141	P
LKARNI, NANDINI S 621 S. NEW BALLAS RD CREVE COEUR, MO 63141	AN
MAR, MOHAN V 1040 NORTH MASON RD SUITE 209 ST LOUIS, MO 63141	FP
MAR, RAVI S APT. 3, 2057 CANNON HEIGHTS CHESTERFIELD, MO 63017	AN
MARI, VIJAYA 615 S. NEW BALLAS RD ST. LOUIS, MO 63141	OBG
TRYB, WALTER J 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	IM
TTNER, MARIANNE 7247 DELMAR BLVD ST LOUIS, MO 63130	PD
AN, VICENTE W P. O. BOX 399 POTOSI, MO 63664	IM
AW, MYO M 11155 DUNN RD ST LOUIS, MO 63136	R
ZER, DAVID D P O BOX 7103 ROCHESTER, MN 55903	ORS
ECUYER, JEROME L 9313 MANCHESTER RD ST LOUIS, MO 63119	PD
DRIERE, RAYMOND J 450 CHESTERFIELD CENTER CHESTERFIELD, MO 63017	PD
CSON, LETICIA D 254 PENWOOD CT CHESTERFIELD, MO 63017	CHP
CY, PAUL F WASHINGTON U SCH MED ST LOUIS, MO 63110	PTH
D, CHAS B P O BOX 14490 ST LOUIS, MO 63166	GP
RD, JOHN M 3009 N BALLAS RD SUITE 108 ST LOUIS, MO 63131	IM
, ERNESTO S 142 E LOCKWOOD ST LOUIS, MO 63119	GS
B, WANDA 456 N NEW BALLAS RD SUITE 282 ST LOUIS, MO 63141	P
BERG, ROBERT L 211 NORTH MERAMEC CLAYTON, MO 63105	OPH
PING, J D 2821 NORTH BALLAS ST LOUIS, MO 63131	OBG
PROS, WM P 1035 BELLEVUE ST LOUIS, MO 63117	OTO
DAU, WM M 640 S KINGSHIGHWAY ST LOUIS, MO 63110	N
DER, JERROLD J 5505 DELMAR SUITE 503 ST. LOUIS, MO 63112	IM
DER, ROBERT C 456 N NEW BALLAS SUITE 369 ST LOUIS, MO 63141	ORS
RY, J H 2821 N BALLAS RD ST LOUIS, MO 63131	R
Y, RICHARD 150 OAKLAND T LOUIS, MO 63139	PTH
, CLINTON W 50 FRANCIS PL T LOUIS, MO 63105	D
, DANL K 50 FRANCIS PL T LOUIS, MO 63105	D
, JOHN J 07 FAIRWAYS CIRCLE T LOUIS, MO 63141	R
E, ADOLPH C 536 DEVONSHIRE T LOUIS, MO 63109	OPH
LANGE, DAVID R SUITE #360 12255 DEPAUL DR. BRIDGETON, MO 63044	ORS
LANGENBACH, ALFRED M 10012 WOODLAWN ST LOUIS, MO 63124	FP
LANIER, EARL W 2386 NORTH HWY 67 FLORISSANT, MO 63033	FP
LANSANGAN, ISAIAS P 13 MERAMEC HGTS SHOPPING CTR ARNOLD, MO 63010	IM
LANSCHE, W E 3009 NORTH BALLAS ROAD ST LOUIS, MO 63131	ORS
LAROCCA, FELIX F 18 WEST POINT LANE ST LOUIS, MO 63131	CHP
LARSEN, VIRGINIA L 5825 SOUTHWEST ST ST LOUIS, MO 63139	PD
LARSON, PAUL U 3654 S GRAND BLVD ST LOUIS, MO 63118	IM
LATTINVILLE, HENRY E 12255 DEL PAUL DR SUITE BRIDGETON, MO 63044	NS
LAU, LUIS 1467 BEAUVILLE DR-WARSO ST LOUIS, MO 63122	P
LAUBER, JOS J 621 S NEW BALLAS RD ST LOUIS, MO 63141	FP
LAUER, JOHN D 555 HIGH MEADOW RD ST LOUIS, MO 63131	R
LAUTER, STEVEN 777 S NEW BALLAS ST LOUIS, MO 63141	IM
LAUX, FRANCE A 2204 WELSCH INDUSTRIAL CT ST LOUIS, MO 63141	PTH
LAWRENCE, GEO H 12303 DE PAUL DR BRIDGETON, MO 63044	N
LAWRENCE, HENRY S 1465 S GRAND BLVD. ST LOUIS, MO 63104	PD
LAWTON, JOHN T 522 NORTH NEW BALLAS RD ST LOUIS, MO 63141	IM
LAYCOB, LELAND M 522 N NEW BALLAS ST LOUIS, MO 63141	PD
LE, HIEU H 1325 SO. GRAND BLVD ST LOUIS, MO 63104	AN
LE BLANC, LEO J 621 S NEW BALLAS RD ST LOUIS, MO 63141	CRS
LEACH, WILFRED 3655 VISTA AVE ST LOUIS, MO 63110	OTO
LEARY, DANL J JR 2445 COPPER BEECH ST LOUIS, MO 63131	R
LEE, DUK S 12848 TOPPING MEADOWS DR TOWN & COUNTRY, MO 63131	AN
LEE, FRANSISKA A ST JOHN'S MERCY HOSP 615 SO NEW BALLAS RD ST LOUIS, MO 63141	IR
LEE, JOSEPH KING TAK 510 S KINGSHIGHWAY ST LOUIS, MO 63110	IM
LEE, KIL S 11155 DUNN RD ST LOUIS, MO 63136	DR
LEE, YEW SOONG CLEVELAND CLINIC 9500 EUCLID DEPT OF NEUROLOGY CLEVELAND, OH 44106	N
LEHNERT, STEPHEN E 615 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
LEIGHTNER, WM F 550 BEDFORD AVE ST LOUIS, MO 63130	IM
LEMING, BERT H 11714 CRAIGVIEW DR ST LOUIS, MO 63141	PTH
LEMLEY, JOHN S 9293 WATSON RD ST LOUIS, MO 63126	ON
LENDBEL, MILTON I 10358 CHIMNEY ROCK DR APT 24 ST LOUIS, MO 63141	ORS
LEONHARDT, ERWIN M ST ANTHONYS MED OFFICE SUITE 335 ST LOUIS, MO 63128	IM
LEPLEY, CHARLES P O BOX 1628 MARYLAND HTS , MO 63043	GP
LERWICK, EVERETT R MO BAPTIST DIAGNOSTIC CTR 3009 N BALLAS STE 216 ST LOUIS, MO 63131	GS
LESLIE, CHAS H 1065 HAVERSHAM PL DES PERES, MO 63131	FP
LEVIN, MARVIN E 777 S NEW BALLAS RD ST LOUIS, MO 63141	IM
LEVINE, LAURENCE A 4910 FOREST PARK ST LOUIS, MO 63108	OTO
LEVITT, JOS 8515 DELMAR BLVD ST LOUIS, MO 63124	IM
LEVITT, ROBT G 510 S KINGSHIGHWAY ST LOUIS, MO 63110	DR
LEVY, MORTON A 522 N NEW BALLAS RD CREVE COEUR, MO 63141	IM
LEWIN, W H 906 OLIVE ST ST LOUIS, MO 63101	OPH
LEWIS, JAMES E 1401 S GRAND BLVD GLENN ST LOUIS, MO 63104	GS
LEWIS, ROBERT D 9187 ARROW DR ST LOUIS, MO 63123	OPH
LIAO, KUN T 11636 ADMINISTRATION DR ST LOUIS, MO 63141	PTH
LIEB, FRANCIS X 621 S NEW BALLAS RD ST LOUIS, MO 63141	PD
LIEBERMAN, DAVID M 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM
LIEBHABER, HARVEY 8515 DELMAR ST LOUIS, MO 63124	IM
LILLY, DOUGLAS R 621 S NEW BALLAS RD ST LOUIS, MO 63141	NM
LIM, IL T 197 SEABROOK DRIVE CHESTERFIELD, MO 63017	AN
LIM, PIEMSAK 4200 N CLOVERLEAF DR. SUITE N ST CHARLES, MO 63301	OBG
LIMA, JOSE A 1325 S. GRAND ST LOUIS, MO 63104	OTO
LINBERG, JOHN V 1034 S BRENTWOOD ST LOUIS, MO 63117	OPH
LINDEMAN, CARL H 7101 WESTMORELAND ST LOUIS, MO 63130	FP
LINDEMAN, JOHN F 615 SO NEW BALLAS RD ST. LOUIS, MO 63141	IM
LINDER, HOWARD E 3015 N BALLAS RD ST LOUIS, MO 63131	PUD
LINK, ALEXANDER J 7215 MARYLAND ST LOUIS, MO 63130	DR
LINS, ROBT D 309 MANCHESTER RD MANCHESTER, MO 63011	PD
LIPSCHITZ, ERVIN 777 S NEW BALLAS RD ST LOUIS, MO 63141	P
LIPSITZ, ELLIS S 4511 FOREST PARK ST LOUIS, MO 63108	IM
LISCHER, CARL F 8012 PERSHING AVE ST LOUIS, MO 63105	GS
LISCHWE, DANIEL H 12255 DEPAUL DRIVE SUITE 600 BRIDGETON, MO 63044	FP
LISS, JAY I 763 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	P
LISSNER, ARTHUR B 1245 GRAHAM RD FLORISSANT, MO 63031	PS
LITTLE, MONROE H 7830 BLACKBERRY AVE ST LOUIS, MO 63130	FP
LITTMANN, LEWIS E 665 S SKINKER BLVD ST LOUIS, MO 63105	IM
LITZOW, PETER I 1325 SO GRAND BLVD ST LOUIS, MO 63119	R
LIVINGSTON, DON G 650 MANCHESTER RD BALLWIN, MO 63011	PD
LLINAS, ALFREDO J 319 B HAYDEN ST SAYRE, PA 18840	GS

LO PICCOLO, VINCENT J JR PD
2821 N BALLAS RD
ST LOUIS, MO 63131
LO PICCOLO, VINCENT J SR IM
1913 MARCONI AVE
ST LOUIS, MO 63110
LOEB, VIRGIL IM
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
LOEFFEL, ELLEN S OBG
3654 SO GRAND
ST LOUIS, MO 63118
LOGIE, MACDONALD B R
13697 PEACOCK FARM
ST LOUIS, MO 63131
LOHR, ROBT W R
236 CONWAY HILL RD
ST LOUIS, MO 63141
LOITMAN, BERNARD S R
10 WASHINGTON TERR
ST LOUIS, MO 63112
LONDE, ALAN M GS
1040 N MASON RD
ST LOUIS, MO 63141
LONDE, SOL PD
2855 ROSCAMARE RD
BEL AIR, CA 90024
LONDON, STANLEY L GS
456 N NEW BALLAS RD
ST LOUIS, MO 63141
LONERGAN, WARREN M IM
4910 FOREST PARK AVE
ST LOUIS, MO 63108
LONG, FRANK B OBG
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
LONSWAY, MAURICE J PD
8025 DALE AVE
ST LOUIS, MO 63117
LORD, RICHARD E ORS
533 COUCH AVE
SUITE 220
ST LOUIS, MO 63122
LOTTES, J O ORS
6434 CHIPPEWA ST
ST LOUIS, MO 63109
LOWENSTEIN, PAUL S GS
18 S KINGSHIGHWAY BLVD
ST LOUIS, MO 63108
LOYND, ROBT C OTO
950 FRANCIS PL
CLAYTON, MO 63105
LU, FANG T AN
12858 SOMERTON RIDGE DR
ST LOUIS, MO 63141
LUBOWITZ, HERBERT IM
8515 DELMAR
ST LOUIS, MO 63124
LUCIDO, JOSEPH L TS
6 BELLERIVE ACRES
ST LOUIS, MO 63121
LUECHTEFELD, FRANK ORS
12255 DE PAUL DR
BRIDGETON, MO 63044
LUEDDE, PHILIP S OPH
4424 HAMPTON AVE
ST LOUIS, MO 63109
LUEHRS, ROBERT O CHP
200 S BRENTWOOD
APT 3F
ST LOUIS, MO 63105
LUGO, SAML GS
3125 LEMAY FERRY RD
ST LOUIS, MO 63125
LUH, ANDREW M ORS
4110 VON TALGE RD
ST LOUIS, MO 63128
LUM, JON T P
9378 OLIVE BLVD STE 215
ST LOUIS, MO 63132
LUND, HERLUF G U
3654 S GRAND AVE
ST LOUIS MO 63118
LUND, ROBT H GS
1034 S BRENTWOOD
ST LOUIS, MO 63117
LUTHER, GEORGE A ORS
533 COUCH AVE
SUITE 220
ST LOUIS, MO 63122
LYLES, THOMAS O U
1031 BELLEVIEW AVE
SUITE 210
ST LOUIS, MO 63117
LYMAN, EDWARD H OTO
950 FRANCIS PL
ST LOUIS MO 63105
LYNXWILER, CHESTER P PDC
MED DEPT A2SB MONSANTO CO
800 N LINBERGH
ST LOUIS, MO 63166
LYSS, CARL A IM
456 N NEW BALLAS RD
ST LOUIS, MO 63141
LYSS, STANLEY B PD
456 N NEW BALLAS RD
ST LOUIS MO 63141
LYTTLE, GARNET C GS
665 S SKINKER BLVD
ST LOUIS, MO 63105

MAC CAUGHELTY, THOMAS C AN
12764 SPRUCE POND ROAD
ST LOUIS, MO 63131
MAC DONALD, ROBT R DR
621 S NEW BALLAS RD
ST LOUIS, MO 63141
MACDONALD, WM C GE
6744 CLAYTON RD
ST LOUIS, MO 63117
MACEREN, RODOLFO L AN
108 CAMFIELD SQ DR
CREVE COEUR, MO 63141
MACHEFSKY, SIDNEY D R
510 S. KINGSHIGHWAY
ST. LOUIS, MO 63110
MACHEK, OTAKAR PM
6744 CLAYTON RD
ST LOUIS, MO 63117
MACLEOD, ANGUS IM
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
MACNISH, JAMES M U
4919 FOREST PARK
ST LOUIS, MO 63108
MADDIPATI, SREEDEZI AN
1325 SOUTH GRAND
ST LOUIS, MO 63104
MADINUR, VISHWANATH S FP
5400 ARSENAL
ST. LOUIS, MO 63139
MADRID, DOMINADOR O GS
2627 TELEGRAPH RD
ST LOUIS, MO 63125
MAGEE, WM E IM
RALSTON-PURINA CO
835 SOUTH 8TH STREET
ST LOUIS, MO 63102
MAGINN, R R GS
911 S BRENTWOOD
ST LOUIS, MO 63105
MAGNESS, GUY N FP
608 KINGSLAND AVE
UNIVERSITY CITY, MO 63130
MAGRANE, DIANE M OBG
9721 HASTINGS
OLIVETTE, MO 63132
MAHADEVAN, JAMBUNATHAN IM
472 GABRIEL CT
ST LOUIS, MO 63122
MAHE, GEO A IM
911 S BRENTWOOD BLVD
ST LOUIS, MO 63105
MAHER, THOS F R
621 S NEW BALLAS RD
ST LOUIS, MO 63141
MAITZ, CARLOS A OBG
ST JOHN'S MERCY MED CTR
615 SO NEW BALLAS
ST LOUIS, MO 63141
MAJORS, PATRICK F IM
950 FRANCIS
ST LOUIS, MO 63105
MALIK, SARFRAZ A GE
6651 CHIPPEWA
SUITE 218
ST LOUIS, MO 63109
MALLYA ASHOK R P
5400 ARSENAL ST
ST LOUIS, MO 63139
MALMBERG, VIRGIL L P
DEPT OF PSYCHIATRY
BARNES HOSP
ST LOUIS, MO 63110
MALT, SHERWIN H GS
522 N NEW BALLAS RD
ST LOUIS, MO 63141
MANANSALA, ANTONIO O GP
8112 WEST MURDOCK
WICHITA, KS 67212
MANES-MARTINEZ, JOSE PTH
232 SOUTH WOODS MILL RD
CHESTERFIELD, MO 63017
MANGELSDORF, THOMAS K P
621 S NEW BALLAS
ST LOUIS, MO 63141
MANIGO, OLIVER JR IM
2241 A BRENTWOOD
BRENTWOOD, MO 63144
MANION, MARIA E CHP
522 N NEW BALLAS RD
SUITE 382
ST LOUIS, MO 63141
MANION, PETER J PD
6405 MURDOCH AVE .
ST LOUIS, MO 63109
MANLEY, CHAS B U
18 S KINGSHIGHWAY #15 S
ST LOUIS, MO 63108
MANNIS, CHARLES I ORS
522 N NEW BALLAS RD
ST LOUIS, MO 63141
MANSKE, PAUL R ORS
12615 OLD TESSON FERRY RD
ST LOUIS MO 63128
MANTENA, RAJU N AN
571 PRINCEWAY CT
MANCHESTER, MO 63011

MARANAN, DIOSDADO L EM
4061 JEFFCO BLVD.
SUITE #4
ARNOLD, MO 63010
MARAVILLA, LEVY M GP
4211 BAYLESS AVE
ST LOUIS, MO 63123
MARBARGER, JOHN P JR CD
SUITE 3108 QUEENY TOWER
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
MARCHOSKY-KOGAN, JOSE A NS
1507 CERULEAN DR
ST LOUIS, MO 63141
MARCUS, MORRIS D D
8631 DELMAR BLVD
ST LOUIS, MO 63124
MARDER, CAREY M IM
3535 S JEFFERSON AVE
ST LOUIS, MO 63118
MARGOLIS, DAVID M GP
1115 DUNN RD.
ST LOUIS, MO 63136
MARGOLIS, RICHARD M PD
SUITE 490 DEPAUL PROF BLDG
12255 DEPAUL DRIVE
BRIDGETON, MO 63044
MARGOLIS, ROBERT P N
11155 DUNN RD
ST LOUIS, MO 63136
MARMOR, WM A OT
1233 GUELBRETH LN
ST LOUIS, MO 63141
MARRS, DAVID B D
4950 AUDUBON AVE
ST LOUIS, MO 63110
MARSH, JEFFREY L PS
500 S KINGSHIGHWAY
ST LOUIS, MO 63110
MARSHALL, JAY P II IM
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
MARTEL, DOMINIQUE J AN
7344 PRINCETON AVE
ST LOUIS, MO 63130
MARTIN, DANL J OB
500 NORTHWEST PLAZA
ST ANN, MO 63074
MARTIN, DAVID S R
1383 WHITE ORCHARD
ST LOUIS, MO 63141
MARTIN, FREDERICK W OR
325 N KIRKWOOD RD
ST LOUIS, MO 63122
MARTINEZ, ARMANDO I
2601 NORTH WHITTIER
ST LOUIS, MO 63113
MARTIREZ, EMMANUEL R
224 MERAMEC STA RD
VALLEY PARK, MO 63088
MARTZ JOHN C
325 N KIRKWOOD RD
ST LOUIS, MO 63122
MASSIE, EDWARD CD
9806 LITZSINGER ROAD
ST LOUIS MO 63124
MASTERS, WM H
4910 FOREST PARK BLDG
ST LOUIS, MO 63108
MATHEW, MALEAKAL S CHP
10695 BELLEFONTAINE RD
ST LOUIS, MO 63137
MATHEW, OOMMEN P
4940 WICKHAM FEN RD
FLORISSANT, MO 63033
MATHEW ROYANII M P
1816 MANNINGTON CT
CHESTERFIELD, MO 63017
MATHEW RUBY
224 S WOODSMILL RD
CHESTERFIELD, MO 63017
MATTHEWS HOMER B
3535 SO JEFFERSON
SUITE 210
ST LOUIS, MO 63118
MATTHEWS, JOHN G IM
3707 WATSON RD
ST LOUIS, MO 63109
MAUGHS, SYDNEY B
1034 S BRENTWOOD BLVD S
ST LOUIS, MO 63117
MAXWELL, RICHARD W
5257 LINDELL BLVD
ST LOUIS, MO 63108
MAYER, ROBT A IM
3009 N BALLAS RD
SUITE #108
ST LOUIS, MO 63131
MAYFIELD, WM R
621 S NEW BALLAS RD
ST LOUIS, MO 63141
MAYUGA, EDGARDO G
10010 KENNERLY RD
ST LOUIS, MO 63128
MC ADAM, CHAS R
7516 FLORISSANT RD
ST LOUIS, MO 63121
MC AFEE, CHESTER A
5505 DELMAR BLVD RM 300
ST LOUIS, MO 63112

MC ALISTER, WM H	510 S KINGSHIGHWAY ST LOUIS, MO 63110	R
MC CALL, EDWIN L	22 HILLTOP DR KIMBERLING CITY, MO 65686	US
MC CARTHY, JOHN M	1035 BELLEVUE AVE ST LOUIS, MO 63117	IM
MC CAUGHAN, JOHN M	4605 LINDELL BLVD ST LOUIS, MO 63108	GS
MC CLINTOCK, MARTIN R	14382 WOODLAKE CHESTERFIELD, MO 63017	FP
MC CLOSKEY, ROBT R	10004 KENNERLY SUITE 140 ST LOUIS, MO 63128	OTO
MC CLURE, DAVID N	2821 N BALLAS RD ST LOUIS, MO 63131	PD
MC COOL, JAMES F	3915 WATSON RD ST LOUIS, MO 63109	IM
C COOL, STANLEY	316 N NEWSTEAD ST LOUIS, MO 63108	IM
C COWN, ALLAN H	9801 LOG CABIN CT ST LOUIS, MO 63124	R
C DONALD, JAMES E	510 S KINGSHIGHWAY ST LOUIS, MO 63110	R
C ELENEY, JAMES D	4940 BERTHOLD ST LOUIS, MO 63110	FM
C GINNIS, WM F	224 SO WOODS MILL RD SUITE 450 CHESTERFIELD, MO 63017	ORG
C GUIRE, BERNARD J	615 SOUTH NEW BALLAS RD CREVE COEUR, MO 63141	IM
C KEE, OLIVER A	MCKEE DERMATOLOGY INC 325 N. KIRKWOOD DR KIRKWOOD, MO 63122	D
C KINNEY, JOE K	777 S NEW BALLAS RD-STE ST LOUIS, MO 63141	P
C LAUGHLIN, KATHLEEN S	1824 TOPPING RD ST LOUIS, MO 63131	PTH
LEAN, ROYAL C	520 W JEWEL AVE KIRKWOOD, MO 63122	GP
MULLIN, FORBES A	12615 OLD TESSON ROAD ST LOUIS, MO 63128	ORS
MURRAY, HERBERT C	BOX 789 MANCHESTER, MO 63011	FP
NALLEY, MICHAEL	10733 BIG BEND ST LOUIS, MO 63122	ORG
NAMARA, JOHN J	21 BERKSHIRE RICHMOND HEIGHT, MO 63117	R
CARTHY, CHRISTOPHER E	615 S NEW BALLAS RD ST LOUIS, MO 63141	IM
CLENNAN, BRUCE L	510 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	DR
KINNEY, WILLIAM D JR	202 W RUSSELL IRONTON, MO 63650	FP
LAREN, ANN L	109 W PINE PLACE ST LOUIS, MO 63108	FP
ADOR, JAMES R	10367 OXFORD HILL DRIVE ST LOUIS, MO 63141	GS
ADOWS, CHAS D	777 S NEW BALLAS RD ST LOUIS, MO 63141	DM
DLER, JOHN F	2821 N BALLAS RD ST LOUIS, MO 63131	ORG
DLER, PAUL L	1034 SOUTH BRENTWOOD ST LOUIS, MO 63117	D
HAN, DONALD J	1035 BELLEVUE ST LOUIS, MO 63117	U
HRA, RAVINDER B	10000 WATSON RD STE F CRESTWOOD, MO 63126	IM
IRA, S K	6651 CHIPPEWA SUITE 306 ST LOUIS, MO 63109	IM
IRA, USHA	10000 HIGHWAY 366 CRESTWOOD, MO 63126	ORG
INBERG, WM H	7052 MARYLAND AVE ST LOUIS, MO 63130	OPH
MEINERS, PAUL N	12255 DE PAUL DR SUITE 240 BRIDGETON, MO 63044	GS
MEINERS, THEODORE M	224 S. WOODS MILL RD CHESTERFIELD, MO 63017	ORG
MELICK, WM F	911 S BRENTWOOD #228 ST LOUIS, MO 63105	U
MELL, ROGER L	224 S WOODS MILL ROAD SUITE 255 CHESTERFIELD, MO 63017	ORS
MELSON, GLENN L	510 S KINGSHIGHWAY ST LOUIS, MO 63110	DR
MELTZER, DAVID W	660 S EUCLID ST LOUIS, MO 63110	OPH
MELZER, JULIET S	3226 MYRA ST APT D DURHAM, NC 27707	GS
MENDELSOHN, GEORGE	5505 DELMAR ST LOUIS, MO 63112	NS
MENDELSOHN, ROBT S	522 NORTH NEW BALLAS ST LOUIS, MO 63141	IM
MENDELSON, DAVID F	141 N MERAMEC AVE ST LOUIS, MO 63105	N
MENDONSA, LAWRENCE E	9811 W FLORISSANT BLVD ST LOUIS, MO 63136	ORG
MENESES, ORLANDO G	11327 GRAVOIS ST LOUIS, MO 63126	FP
MERENDA, FRANK J	777 S NEW BALLAS RD CREVE COEUR, MO 63141	ORS
MERENDA, SAM J	6651 CHIPPEWA ST LOUIS, MO 63109	R
MERRIMS, THEODORE	8631 DELMAR BLVD ST LOUIS, MO 63124	ORG
MERRITT, BURCH A	12937 TIMMOR CT ST LOUIS, MO 63131	PD
MERRITT, DIANE F	BARNES HOSPITAL PLAZA ST LOUIS, MO 63110	ORG
MESIRES, HUGH M	12660 LAMPLIGHTER SQ ST LOUIS, MO 63128	PD
METZ, CHAS D	6459 DEVONSHIRE AVE ST LOUIS, MO 63109	FP
MEYER, HARRY E	522 N NEW BALLAS RD ST LOUIS, MO 63141	P
MEYER, HERMAN M	6215 PERSHING AVE ST LOUIS, MO 63130	IM
MEYER, JAMES F	1012 KOTA DR APO SAN FRANCISCO, CA 96334	FP
MEYER, JAY	763 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	P
MEYER, JOHN S	216 S KINGSHIGHWAY ST LOUIS, MO 63110	CLP
MEYER, MELVIN E	4424 HAMPTON ST ST LOUIS, MO 63109	OPH
MEYER, WAYNE W	15 BALCON ESTATES DR CREVE COEUR, MO 63141	GS
MEYERS, ELSIE E	6364 ALEXANDER DR CLAYTON, MO 63105	AN
MEYERS, JOHN B	120 NORTH FORSYTH BLVD CLAYTON, MO 63105	IM
MEYERS, ROBT W	4524 FOREST PK BLVD ST LOUIS, MO 63108	P
MICHAEL, VERNON E	SUITE 343-FRISCO BLDG 906 OLIVE ST LOUIS, MO 63101	GS
MICHALIREE, JOHN L	9705 HIGHWAY 66 CRESTWOOD, MO 63126	FP
MIDDLETON, JERRY N	777 S NEW BALLAS RD ST LOUIS, MO 63141	ORG
MIER, THOS M	516 OVERHILL DR ST LOUIS, MO 63130	ORG
MIKHAIL, GIRGIS	1325 S GRAND BLVD ST LOUIS, MO 63104	ORG
MIKOLAJCZAK, JAMES	10004 KENNERLY RD SUITE 255 ST LOUIS, MO 63128	P
MILDER, BARRY D	211 N MERAMEC AVE CLAYTON, MO 63105	OPH
MILDER, BENJ	10 TERRYHILL LANE ST LOUIS, MO 63131	OPH
MILES, PAUL W	15 RIDGE CREEK RD ST LOUIS, MO 63141	OPH
MILL, WM R	1325 SO GRAND DEPT OF RADIATION, ONC ST LOUIS, MO 63104	TR
MILLANGUE, CONSOLACION P	8059 WATSON RD WEBSTER GROVES, MO 63119	IM
MILLANGUE, RAFAEL M	8059 WATSON RD WEBSTER GROVES, MO 63119	GS
MILLER, CHAS	12166 BIG BEND BLVD KIRKWOOD, MO 63122	IM
MILLER, EDWARD J	522 N NEW BALLAS STE 34 ST LOUIS, MO 63141	IM
MILLER, GEOFFREY W	60 BERKSHIRE ST LOUIS, MO 63117	R
MILLER, JAMES F	ST LOUIS CHILDRENS HOSP ST LOUIS, MO 63110	OPH
MILLER, JAMES R	99 TRENT DR ST LOUIS, MO 63124	PTH
MILLER, JULE P	4524 FOREST PARK BLVD ST LOUIS, MO 63108	P
MILLER, ROBT N	ST JOHNS MERCY MED CTR- ST LOUIS, MO 63141	AN
MILLER, WM V	4050 LINDELL BLVD ST LOUIS, MO 63108	PTH
MILSTEAD, KENNETH L	4817 DORSET AVE CHEVY CHASE, MD 20015	AN
MILSTER, CLYDE R	906 OLIVE ST ST LOUIS, MO 63101	OPH
MINNIHAN, ROBT W	141 N MERAMEC ST LOUIS, MO 63105	P
MIRBAHA, MITCHELL M	4110 VON TALGE RD ST LOUIS, MO 63128	ORS
MISCHNICK, CAROL R	1035 BELLEVUE ST LOUIS, MO 63117	PS
MISHKIN, MARVIN R	522 N NEW BALLAS RD ST LOUIS, MO 63141	ORS
MISKOVSKY, EMIL F	12255 DEPAUL DR SUITE 865 BRIDGETON, MO 63044	CD
MISSEY, WILBURN E	621 S NEW BALLAS RD ST LOUIS, MO 63141	IM
MISTRY, TEHMTON S	35 N CENTRAL ST LOUIS, MO 63105	ORG
MITHEN, FRANCIS A	3877 MARIETTA ST LOUIS, MO 63121	GS
MODIN, JEFFREY J	11745 OLIVE ST RD ST LOUIS, MO 63141	CHN
MOELLER, FRANK D	777 SO NEW BALLAS RD ST LOUIS, MO 63141	ORG
MOHS, FRANK R	12304 DEPAUL DR BRIDGETON, MO 63044	IM
MOLDEN, C S	ST LOUIS MEDICAL CLINIC 3009 NO BALLAS RD ST LOUIS, MO 63131	IM
MOLDEN, CHAS A	7520 NATURAL BRIDGE RD ST LOUIS, MO 63121	FP
MOLETOR, JEROME A	13427 LAND O WOODS CREVE COEUR, MO 63141	R
MOMTAZEE, SAM	3654 S GRAND BLVD ST LOUIS, MO 63118	ORG
MONACO, WM W	WASHINGTON UNIV 4960 AUDUBON ST LOUIS, MO 63110	GS
MONAT, SEYMOUR M	8631 DELMAR BLVD ST LOUIS, MO 63124	ORG
MONSEES, BARBARA	478 W LOCKWOOD AVE ST LOUIS, MO 63119	PD
MONTANI, CHAS	5147 DAGGETT AVE ST LOUIS, MO 63110	FP

MONTERUBIO, FRED R JR OBG
1325 S GRAND BLVD.
ST LOUIS, MO 63104
MONTES, ARTURO C EP
4585 WASHINGTON
SUITE C-4
FLORISSANT, MO 63033
MONTES DE OCA, JULIO IM
950 FRANCIS PL
CLAYTON, MO 63105
MONTGOMERY, AUSTIN E IM
3009 N BALLAS RD.
SUITE 107
ST LOUIS, MO 63131
MOOLSINTONG, PORNCHAI R
447 TWIN CREEK RD
ST LOUIS, MO 63141
MOON, THOS R N
12166 BIG BEND BLVD
KIRKWOOD, MO 63122
MOORE, ALVA IM
5142 RAYMOND AVE
ST LOUIS, MO 63113
MOORE, HARRY G CHP
111 S MERAMEC
SUITE 503
ST LOUIS, MO 63105
MOORE, HARRY G EP
40 N KINGSHIGHWAY
ST LOUIS, MO 63108
MOORE, WALTER L N
215 N CENTRAL AVE
CLAYTON, MO 63105
MORA, ALVARO OBG
4956 MARDEL AVE
ST LOUIS, MO 63109
MORAN, CHRISTOPHER J DR
2821 N. BALLAS RD
ST LOUIS, MO 63141
MORAN, THOS M P
SUITE 203
889 S BRENTWOOD
ST LOUIS, MO 63105
MORGAN, HARRY C ORS
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
MORGAN, STEPHAN S OPH
16 HAMPTON VILLAGE PLAZ
ST LOUIS, MO 63109
MORGAN, WILLY J C U
4601 STATE ST
EAST ST LOUIS, IL 62205
MORITZ, GERALD OTO
12255 DEPAUL DR
ST LOUIS, MO 63144
MORITZ, MARK W GS
4989 BARNES HOSP PLAZA
ST LOUIS, MO 63110
MORRIN, KEVIN OBG
5251 WESTMINSTER PL
ST LOUIS, MO 63108
MORRIS, ALAN H ORS
522 N NEW BALLAS RD
ST LOUIS, MO 63141
MORRIS, HARVEY F FP
12632 FRIENDSHIP RIDGE LANE
ST LOUIS, MO 63127
MORRIS, MARY E OBG
2710 S GRAND APT 801
ST LOUIS, MO 63103
MORRISON, ARLEN E IM
224 SOUTH WOODS MILL RD
SUITE 370
CHESTERFIELD, MO 63017
MORTENSEN, FREDE IM
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
MOSES, ROBT A OPH
660 S EUCLID AVE
ST LOUIS, MO 63110
MOSLEY, JULIAN C GS
3737 N KINGSHIGHWAY
ST LOUIS, MO 63115
MOSQUERA, JAIME J OBG
1245 GRAHAM ST
FLORISSANT, MO 63031
MOTZEL, ALBERT J GS
6238 WASHINGTON BLVD
ST LOUIS, MO 63130
MOWREY, WM O FP
7071 LINDELL BLVD
ST LOUIS, MO 63130
MUCHNICK, RICHARD L IM
12494 TESSON FERRY RD
ST LOUIS, MO 63128
MUCKERMAN, RICHARD C II OBG
ST JOHN'S MERCY MED CTR
BALLAS & CONWAY RDS
ST LOUIS MO 63141
MUCKERMAN, RICHARD I OBG
621 S NEW BALLAS RD
ST LOUIS MO 63141
MUDD, [illegible] F CD
1325 S GRAND BLVD
ST LOUIS MO 63104
MUELHEIMS, GERHARD H IM
1515 LAFAYETTE AVE
ST LOUIS, MO 63104

MUELLER, CLARENCE E IM
522 N NEW BALLAS RD-STE
ST LOUIS, MO 63141
MUELLER, JOS A FP
3654 S GRAND BLVD
ST LOUIS, MO 63118
MUELLER, MORRIS A IM
4917 RAVENSWOOD APT 111
SAN ANTONIO, TX 78227
MUELLER, ROBT GS
275 UNION BLVD
ST LOUIS, MO 63108
MUELLER, ROBT J P
16 HAMPTON VIL PLAZA
ST LOUIS, MO 63109
MUELLER, WILBUR K R
9645 BIG BEND BLVD
BETHESDA DILWORTH ME
ST LOUIS, MO 63122
MUHAMMUD, EAQUIR IM
11155 DUNN RD
SUITE 213
ST LOUIS, MO 63136
MULLARKY, WILBUR A IM
10646 ST CHARLES ROCK R
ST ANN, MO 63074
MULLENGER, KEITH L DR
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
MULLINS, JOHN E IM
3009 N BALLAS RD
ST LOUIS, MO 63131
MUNCY, GARY A AN
427 HERWORTH
CHESTERFIELD, MO 63017
MUNEY, ALAN M PD
500 S. KINGSHIGHWAY
ST LOUIS, MO 63110
MUNSCH, ROBERT F OPH
3660 VISTA AVE
ST LOUIS, MO 63110
MURPHY, DANIEL J IM
3394 MCKELVEY ROAD
HAZELWOOD, MO 63044
MURPHY, GEO E P
4940 AUDUBON AVE
ST LOUIS, MO 63110
MURPHY, JAMES P CD
911 S BRENTWOOD BLVD
CLAYTON, MO 63105
MURPHY, WM A DR
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
MUSCHANY, NORMAN K OBG
522 N NEW BALLAS RD
ST LOUIS, MO 63141
MYERS, GARY H N
METROPOLITAN NEUROLOGY, LTD
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
MYERS, IVAN T OBG
35 N CENTRAL AVE
ST LOUIS, MO 63105
NAHM, CHUNG C IM
3535 SOUTH JEFFERSON AV
ST LOUIS, MO 63118
NAIDU, GONUGUNTLA IM
10004 KENNERLY RD.
SUITE 257
ST LOUIS, MO 63128
NAIR, K IM
608 HICKORY KNOLL CT
BALLWIN, MO 63011
NALAGAN, MARCOS C IM
9730 EAST WATSON RD
ST LOUIS, MO 63126
NARAYAN, DILIP L GE
5505 DELMAR
SUITE 310
ST LOUIS, MO 63112
NARKIEWICZ, LAWRENCE S IM
533 COUCH SUITE G20
ST LOUIS, MO 63122
NARYKA, JOSEPH J U
911 S BRENTWOOD #228
ST LOUIS, MO 63105
NASEER, RIAZ A N
1338 TOPPING RD.
ST LOUIS, MO 63131
NASH, HELEN E PD
1441 N GRAND
ST LOUIS, MO 63106
NASH, HOMER E PD
3737 N KINGSHIGHWAY
SUITE 101
ST LOUIS, MO 63118
NATHAN, LESTER J GS
777 S NEW BALLAS RD
ST LOUIS, MO 63141
NEAR, DAVID M GS
1125 GRAHAM ROAD
FLORISSANT, MO 63031
NELSON, JAMES S PTH
500 SOUTH KINGSHIGHWAY
ST LOUIS, MO 63110
NELSON, JOHN R CD
533 COUCH SUITE G20
ST LOUIS, MO 63122

NEMEC, EDWARD S R
4906 WESTMONT
GODFREY, IL 62035
NEMEC, STANLEY S R
6500 CHIPPEWA STE 1
ST LOUIS, MO 63109
NEPUTE, JAMES A R
1325 S. GRAND
ST LOUIS, MO 63104
NEUMAN, NEAL U
456 N NEW BALLAS RD
ST LOUIS, MO 63141
NEWMAN, MATTHEW OP
1034 S BRENTWOOD
ST LOUIS, MO 63117
NEWMAN, PERCY OS
1109 N HANLEY RD
ST LOUIS, MO 63130
NEWMARK, LEONARD N IM
777 S NEW BALLAS RD STE
ST LOUIS, MO 63141
NEWPORT, GERALD OB
77 WESTPORT PLAZA
SUITE 265
ST. LOUIS, MO 63141
NEWTON, GORDON IM
141 N MERAMEC SUITE 202
ST LOUIS, MO 63105
NGUYEN, LOI D FP
3748 ITASKA APT 12
ST. LOUIS, MO 63116
NICKEL, JAMES F IM
621 S NEW BALLAS RD STE
ST LOUIS, MO 63141
NICOLAI, CHAS H U
3009 N. BALLAS RD
SUITE 215
ST LOUIS, MO 63131
NIEDERMEYER, GEO J OB
6744 CLAYTON RD
ST LOUIS, MO 63117
NIESEN, ANNA R IM
1035 BELLEVUE AVE
SUITE 500
ST LOUIS, MO 63117
NIESEN, FRANK J GS
6500 CHIPPEWA
ST LOUIS, MO 63109
NIEVA, DELEIN T AN
5291 BRASS LANTERN
ST LOUIS, MO 63128
NIGH, CHAS A GS
3915 WATSON RD
ST LOUIS, MO 63109
NISHI, TOSHIO PTH
3071 ANDOVER DR
ST LOUIS, MO 63121
NOLAN, CHAS J R
312 CHATEAUGAY
CHESTERFIELD, MO 63017
NOLLER, HENRY W IM
9440 MIDLAND AVE
ST LOUIS, MO 63114
NOMURA, ROY M PTH
777 S NEW BALLAS
ST LOUIS, MO 63141
NORDLICHT, SCOTT M IM
SUITE 4104 QUEENY TOWER
BARNES HOSPITAL PLAZA
ST. LOUIS, MO 63110
NORLAND, CHAS C IM
ST LOUIS MEDICAL CLINIC
3009 N BALLAS RD
ST LOUIS, MO 63131
NOUHAN, JOS G OBG
621 S NEW BALLAS STE 56
CREVE COEUR, MO 63141
NOURI, HASSAN OBG
12622 ALSWELL LANE
ST LOUIS, MO 63128
NOVACK, MARK A IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
NUETZEL, JOHN A IM
911 S BRENTWOOD BLVD
CLAYTON, MO 63105
NUNEZ, MARIA A PD
2821 BALLAS RD STE 135
ST LOUIS, MO 63131
NYE, ROBT S GP
8701 GRAVOIS AVE
ST LOUIS, MO 63123
NYSEWANDER, RICHARD W P
2754 NORTH DECATUR ROAD
SUITE 107
DECATUR, GA 30030
O'BANNON, LON W IM
1125 GRAHAM RD
FLORISSANT, MO 63031
O'BRIEN, EDWARD C GP
605 CANDLEBURY CT-APT B
ST LOUIS, MO 63122
O'BRIEN, EDWARD J R
6150 OAKLAND AVE
ST LOUIS, MO 63139
O'BRIEN, ROBERT M ORS
777 S NEW BALLAS RD
ST LOUIS, MO 63141

'CONNELL, TIMOTHY PS
777 S. NEW BALLAS
ST LOUIS, MO 63141

'CONNOR, ROBT J GP
751 ST FRANCOIS ST
FLORISSANT, MO 63031

'DONNELL, FRANCIS E OPH
3655 VISTA AVE.
ST LOUIS, MO 63110

'DONNELL, JOS V IM
1661 DUNMORR
ST LOUIS, MO 63131

'DOWD, JAMES A GP
9405 MACKENZIE RD
ST LOUIS, MO 63123

'KEEFE, JOS D OBG
533 COUCH AVE
KIRKWOOD, MO 63122

'KEEFE, TIMOTHY F IM
6150 OAKLAND
ST LOUIS, MO 63139

'NEAL, LAWRENCE W GS
615 SOUTH NEW BALLAS RD
ST LOUIS, MO 63141

'NEAL, PATRICIA L P
4989 BARNES HOSP PLAZA-
ST LOUIS, MO 63110

'REILLY, D E ORS
1325 S GRAND BLVD
ST LOUIS, MO 63104

'SULLIVAN, DANL F GS
10007 KENNERLY RD
SUITE A
ST LOUIS, MO 63128

AKLEY, MARGARET M AN
407 STEEPLE CHASE
ST LOUIS, MO 63131

ERMEYER, CHAS G AN
3957 HOLLY HILLS BLVD
ST LOUIS, MO 63116

HOA, PEDRO GS
3555 RITZ CENTER
ST LOUIS, MO 63125

REZIN, GREGORY I R
MALLINCKRODT INST RADIOLOGY
510 S KINGSHIGHWAY
ST LOUIS, MO 63110

RTLI, ROBERT IM
12494 TESSON FERRY RD
ST LOUIS, MO 63128

TTER, DONALD L A
1040 MASON RD N
ST LOUIS, MO 63141

LESBY, RICHARD B OPH
621 S NEW BALLAS RD
ST LOUIS, MO 63141

NYANOV, VOISLAV F P
551 WHITE ROSE LANE
ST LOUIS, MO 63132

URA, JOS H OTO
1038 WINWOOD DRIVE
ST LOUIS, MO 63124

LMS, DAVID L P
777 S NEW BALLAS RD
ST LOUIS, MO 63141

MOTO, MASAO IM
9794 SHERRELL CT
ST LOUIS, MO 63119

ASCASTRO, ALEJANDRO C GP
9465 CROOKED CREEK TRAI
ST LOUIS, MO 63127

AFOR, NATH C OBG
1515 LAFAYETTE
ST LOUIS, MO 63104

IN, EDWARD OPH
EAST PAVILION SUITE 17413
4949 BARNES HOSP PLAZA
ST LOUIS, MO 63110

ANDER, DAVID S PDC
456 N NEW BALLAS RD
ST LOUIS, MO 63141

ADA, MIGUEL M IM
201 MANCHESTER
MANCHESTER, MO 63011

INGER, HENRY G PS
3009 NORTH BALLAS RD
ST LOUIS, MO 63131

SON, ROBT F IM
1402 S GRAND BLVD
ST LOUIS, MO 63104

LL, GARY H DR
467 KILLEARN
ST LOUIS, MO 63141

, ENG I US
8321 NORTH BROADWAYU
ST LOUIS, MO 63147

, OFELIA S OBG
8321 NORTH BROADWAY
ST LOUIS, MO 63147

EN, HENRY D PS
106 ABERDEEN
ST LOUIS, MO 63105

NUGA, EMMANUEL A GS
2601 N WHITTIER
ST LOUIS, MO 63113

ENHEIMER, HENRY F IM
141 N MERAMEC AVE
CLAYTON, MO 63105

OREBIYI, OLUSOLA A GS
5 SHALFLEET CT.
FLORISSANT, MO 63033

ORENSTEIN, JOSEPH M PUD
417 JACKSON AVE
ST LOUIS, MO 63130

ORGEL, MAURICE N IM
1 HARCOURT DR
ST LOUIS, MO 63105

ORGEL, STUART M IM
9833 COPPER HILL RD
ST LOUIS, MO 63124

ORILLE, OSCAR P R
503 SKYVUE ESTATES
RD #3
WHEELING, WV 26003

ORSAY, PAUL K DR
11155 DUNN RD RM 201
ST LOUIS, MO 63136

ORTBALS, DAVID W IM
8631 DELMAR BLVD SUITE
ST LOUIS, MO 63124

ORTIGUERO, LEOPOLDO M GP
10577 WINDSWEPT DR
ST LOUIS, MO 63128

ORTILLO, AMADO P GP
103 N TAYLOR
ST LOUIS, MO 63122

ORTMEYER, LEROY F IM
11372 FIVE OAKS PARKWAY
ST LOUIS, MO 63128

OSTAPOWICZ, FRANK OBG
3660 VISTA AVE
ST LOUIS, MO 63110

OTT, FLETCHER T OPH
3 HILL DRIVE
GLENDALE, MO 63122

OTT, HAROLD J GP
2816 SUTTON AVE
ST LOUIS, MO 63143

OTT, HAROLD J II OBG
1695 S BRENTWOOD BLVD
ST LOUIS, MO 63144

OTT, WM J OBG
365 WEST POINT CT
ST LOUIS, MO 63130

OTTOLINI, JAMES L OBG
621 S NEW BALLAS RD
ST LOUIS, MO 63141

OWEN, JAMES W IM
13190 SOUTH OUTER FORTY ROAD
CHESTERFIELD, MO 63017

OWEN, ROBT F IM
12 HACIENDA DR
ST LOUIS, MO 63124

OWENS, WM D OS
BARNES HOSP P DPT ANES
ST LOUIS, MO 63110

OZANICH, KATHERINE M D
639 NEWPORT AVE
WEBSTER GROVES, MO 63119

OZMAT, ORHAN M R
4 LA DUE CREST LANE
ST LOUIS, MO 63124

PACKMAN, PAUL P
1034 S BRENTWOOD
SUITE 1180
ST LOUIS, MO 63117

PACKMAN, ROBT C IM
4652 MARYLAND AVE
ST LOUIS, MO 63108

PADILLA, PEDRO C U
201 MANCHESTER
BALLWIN, MO 63011

PADILLA, TERESITA C OBG
5505 DELMAR BLVD
ST LOUIS, MO 63112

PAEZ, MAURO A PTH
11636 ADMINISTRATION DR
ST LOUIS, MO 63141

PAINE, ROBT CD
5535 DELMAR BLVD
ST LOUIS, MO 63112

PALAZZO, FRANK A NS
6744 CLAYTON RD
ST LOUIS, MO 63117

PALETTA, FRANCIS X PS
1035 BELLEVUE
ST LOUIS, MO 63117

PALETTA, FRANK CD
1040 NORTH MASON RD
ST LOUIS, MO 63141

PALETTA, THEODORE L CD
1040 MASON RD N
ST LOUIS, MO 63141

PALETTA, VICTOR L IM
3450 BRIDGELAND DR
BRIDGETON, MO 63044

PALMER, STEPHEN M D
1109 LAKESHORE DR
COLUMBIA, MO 65201

PAPPALARDO, CARLOS PS
621 S NEW BALLAS RD
ST LOUIS, MO 63141

PARDO, LEOPOLDO P NS
9936 HIGHWAY 66
ST LOUIS, MO 63126

PARDO, LOURDES PD
801 S BRENTWOOD BLVD
ST LOUIS, MO 63105

PARIKH, SHARAD P GS
11637 W FLORRISANT AVE.
FLORISSANT, MO 63033

PARIKH, SMITA S R
11637 WEST FLORISSANT AVE
FLORISSANT, MO 63033

PARIS, WM H US
7520 NATURAL BRIDGE RD
NORMANDY, MO 63121

PARK, AGATHA L D
11155 DUNN RD
ST LOUIS, MO 63136

PARKER, ROBERT J OS
615 S. NEW BALLAS RD
ST LOUIS, MO 63141

PARKER, THOS W IM
7298 GREENWAY DR
ST LOUIS, MO 63130

PARKER, WM D
611 OLIVE ST
ST LOUIS, MO 63101

PARKS, CHARLES GS
SUITE 129
456 N NEW BALLAS RD
CREVE COEUR, MO 63141

PARSONS, RICHARD P U
224 S WOODS MILL RD
CHESTERFIELD, MO 63017

PARTAP, PRABHA PTH
2362 RAVENSGATE
ST LOUIS, MO 63131

PARWATIKAR, SADASHIY D P
5400 ARSENAL ST
ST LOUIS, MO 63139

PASIA, EBELLO T GS
11115 NEW HALLS FERRY
FLORISSANT, MO 63033

PASKAR, LARRY D R
14337 STABLESTONE
CHESTERFIELD, MO 63017

PASSANANTE, BARTHOLOMEW M GS
15 KING LYNN
ST LOUIS, MO 63132

PATEL, B K R
1711 PRENDERGAST LANE
ST LOUIS, MO 63138

PATEL, PUSHPA S PD
1465 S. GRAND
ST. LOUIS, MO 63104

PATRICK, ROMAN L PTH
11636 ADMINISTRATION DR
CREVE COEUR, MO 63141

PAULL, BARRY R R
1161 HYDE PARK
SANTA ANA, CA 92705

PAYNE, MEREDITH C PS
7314 WESTMORELAND PLACE
ST LOUIS, MO 63130

PAYNE, VAUGHN C GP
1423 N GRAND BLVD
ST LOUIS, MO 63106

PEARLMAN, ALAN L N
660 S EUCLID AVE
ST LOUIS, MO 63110

PEARSON, WILLIAM E OBG
12166 BIG BEND
KIRKWOOD, MO 63122

PEDEN, BURNET W IM
35 N CENTRAL AVE
CLAYTON, MO 63105

PEDEN, JAMES C IM
621 S NEW BALLAS RD
ST LOUIS, MO 63141

PEDEN, JOS C JR GS
224 S WOODS MILL RD
CHESTERFIELD, MO 63017

PEDEN, JOS C SR R
665 S SKINKER BLVD APT
ST LOUIS, MO 63105

PEEBLES, JONATHAN B US
RR #1
BUCHANAN, TN 38222

PELICAN, GEORGE GP
224 S WOODS MILL RD
SUITE 582
CHESTERFIELD, MO 63017

PELZ, MORT D OTO
1116 CHANTAL LANE
ST LOUIS, MO 63132

PENILLA, ANTONIO R IM
1325 S GRAND BLVD
ST LOUIS, MO 63104

PENNELL, RICHARD C GS
1325 S GRAND
ST LOUIS, MO 63104

PENNINGTON, D G GS
1325 S GRAND AVE
ST LOUIS, MO 63104

PENNINGTON, FRANCIS E GS
4160 GLIDDEN DR
STURGEON BAY, WI 54235

PENNOYER, JAMES OBG
4910 FOREST PARK BLVD
ST LOUIS, MO 63108

PEPPER, EDWARD G R
6150 OAKLAND AVE
ST LOUIS, MO 63139

PEPPER, MAX F PH
DEPT OF COMMUNITY MEDIC
ST LOUIS UNIV SCHOOL
ST LOUIS, MO 63104

PEREZ, ADAMOR R 4415 VERMILLON DR ST LOUIS, MO 63128	GS
PEREZ, BLANCA M 10010 KENNERLY DEPT OF PATH ST ANTYONY'S MED CTR ST LOUIS, MO 63128	PTH
PEREZ, CARLOS A 510 S KINGSHIGHWAY ST LOUIS, MO 63110	TR
PEREZ, ROBERT J 533 COUCH AVENUE ST LOUIS, MO 63122	IM
PEREZ, ROMEO J 3015 N BALLAS RD ST LOUIS, MO 63131	OBG
PERINETTI, ENRIQUE P 12255 DE PAUL DR BRIDGETON, MO 63044	U
PERKINS, DAVID E 1034 S BRENTWOOD ST LOUIS, MO 63117	DR
PERLMUTTER, STEVEN B 615 S NEW BALLAS RD ST LOUIS, MO 63141	OPH
PERNOUD, ELAVIUS G 1035 BELLEVUE ST LOUIS, MO 63117	OPH
PERNOUD, FLAVIUS G 6735 WESTWAY ROAD ST LOUIS, MO 63109	OPH
PERNOUD, JOAN M 6735 WESTWAY ROAD ST LOUIS, MO 63109	OPH
PERNOUD, MICHAEL F 1035 BELLEVUE SUITE 501 ST LOUIS, MO 63117	OPH
PERRY, H MITCHELL JR VA MEDICAL CENTER 111D JC ST LOUIS, MO 63125	CD
PERRY, WM D 1034 S BRENTWOOD BLVD ST LOUIS, MO 63117	IM
PESKIN, EDWARD G 4911 BARNES HOSPITAL PL ST LOUIS, MO 63110	OBG
PETERSON, FREDERICK D 8025 DALE AVE ST LOUIS, MO 63117	PD
PETERSON, GARY J V A MEDICAL CENTER 112 B JC ST LOUIS, MO 63125	GS
PETKOVICH, FRANK O 11155 DUNN RD ST LOUIS, MO 63136	ORS
PETRUSKA, PAUL J %RTD MEDICAL INC 3535 S JEFFERSON #319 ST LOUIS, MO 63118	IM
PHILIP, VARKEY 525 COUCH AVE KIRKWOOD, MO 63122	OS
PHILLIPS, ABRAHAM M 777 S NEW BALLAS RD ST LOUIS, MO 63141	PD
PHILLIPS, HANFORD 6828 OAKLAND AVE ST LOUIS, MO 63139	IM
PHILLIPS, JOHN J 12255 DE PAUL DR BRIDGETON, MO 63044	ORS
PHILLIPS, WM J 5505 DELMAR ST LOUIS, MO 63112	CD
PHILPOTT, GORDON W 216 SOUTH KINGSHIGHWAY ST LOUIS, MO 63110	GS
PHIPATANAKUL, C S 1125 GRAHAM RD FLORISSANT, MO 63031	US
PHIPATANAKUL, SUPOTE 135 W ADAMS ST LOUIS, MO 63122	OTO
PHO, MUI D 3216 W. ADAMS ST CHARLES, MO 63301	EM
PICCIONE, LEONARD N 2377 BROADMONT CT CHESTERFIELD, MO 63017	GP
PIERRON, ROBERT L 805 BITTERFIELD BALLWIN, MO 63011	ORS
PILEPICH, MILIENKO V 4511 FOREST PARK ST LOUIS, MO 63108	R
PILLA, LAWRENCE A #7 HOMELAND PL ST LOUIS, MO 63109	R
PIMENTEL, ESPERANZA M 2323 CHAMBERS ST LOUIS, MO 63136	GP
PIMENTEL, MAURICIO F VA HOSPITAL 915 NO GRAND ST LOUIS, MO 63125	GP
PINEDA, HECTOR O 4201 HERFFORD ST LOUIS, MO 63109	IM
PIPER, AUGUST T 4903 MARTIN LUTHER KING ST LOUIS, MO 63113	IM
PITSINGER, NOLAN B 224 S. WOODS MILL RD SUITE 540 CHESTERFIELD, MO 63017	GS
PITTMAN, GERALD R 5 HIGH ACRES DR ST LOUIS, MO 63132	PTH
PITTMAN, SUSAN 522 N NEW BALLAS RD ST LOUIS, MO 63141	PD
PIZZIMBONO, CARLOS A 1212 BROADWAY HIGHLAND, IL 62249	GS
PLAX, STEVEN I 8025 DALE ST LOUIS, MO 63117	PD
PLUMPE, WM T 4415 MINNOSOTA ST LOUIS, MO 63111	IM
PONNURU, BHASKARA M 13100 THORNHILL DR ST LOUIS, MO 63131	AN
PORPORIS, ARTHUR A 824 RENDERER DR ST LOUIS, MO 63122	R
PORTNOY, JOSEPH L 14377 WOODLAKE DR. CHESTERFIELD, MO 63017	PD
PORTUGAL, ANTONIO Q 6500 CHIPPEWA STE 211 ST LOUIS, MO 63109	GS
PORTUONDO, BONAVENTURE C 3532 FLORA COURT ST LOUIS, MO 63104	PTH
POST, STEPHEN L 4524 FOREST PARK APT 20 ST LOUIS, MO 63108	P
POTASHNICK, ROBT 12255 DE PAUL DR SUITE 865 BRIDGETON, MO 63044	IM
POTTER, REESE H 100 N EUCLID AVE ST LOUIS, MO 63108	P
POTTS, DAN E 114 NORTH TAYLOR AVE ST LOUIS, MO 63108	US
POWELL, CHARLES B 1125 GRAHAM RD FLORISSANT, MO 63031	ORS
POWELL, EARL A 11114 PALMERAS DR SUN CITY, AZ 85351	U
POWELL, JOHN A 911 SO BRENTWOOD ST LOUIS, MO 63105	D
POWERS, PIERCE W 5203 CHIPPEWA ST ST LOUIS, MO 63109	GS
PRENSKY, ARTHUR L DEPT OF PEDIATRICS WASH 500 S KINGSHIGHWAY ST LOUIS, MO 63178	N
PRESNELL, CLEITUS A 6744 CLAYTON RD ST LOUIS, MO 63117	OTO
PRICE, KENNETH C 5505 DELMAR- ROOM 201 ST LOUIS, MO 63112	CD
PROBST, RAYMOND E 10345 WATSON RD ST LOUIS, MO 63127	OBG
PROBSTEIN, JACOB G 4943 LINDELL BLVD ST LOUIS, MO 63108	GS
PROPHETE, BEAUMANOIR SUITE 906 100 NO EUCLID ST LOUIS, MO 63108	U
PROSKEY, VINCENT J 522 N NEW BALLAS RD ST LOUIS, MO 63141	IM
PROSSER, JOSEPH S 10713 SAWARA DR PENSACOLA, FL 32500	IM
PRUETT, BURCHARD S 10321 RICHVIEW DR ST LOUIS, MO 63127	OS
PRUETT, DON S 10 LOG CABIN DR ST LOUIS, MO 63124	GS
PRUETT, HUBERT S 9 MC KNIGHT LANE ST LOUIS, MO 63124	GP
PURCELL, HARRY K 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	G
PURCELL, JOHN 6744 CLAYTON RD ST LOUIS, MO 63117	OPH
PURO, EDWARD A 6254 WATERMAN ST LOUIS MO 63130	IM
PYNE HERBERT S 6651 CHIPPEWA ST LOUIS MO 63109	G
QUADIR, HUMAYUM 10004 KENNERLY RD ST LOUIS, MO 63128	IM
QUICK, RICHARD T 9821 COPPER HILL ROAD ST LOUIS, MO 63124	P
QURESHI, ABDUL R 10004 KENNERLY ROAD ST LOUIS, MO 63128	IM
RACADIO, SEVERO M P O. BOX 1 ARNOLD, MO 63010	GP
RACHLIN, MAXWELL 211 N MERAMEC ST LOUIS, MO 63105	OP
RADER, EDWARD S 7744 DAVIS DR CLAYTON, MO 63105	U
RADER, GEO B 224 S WOODS MILL RD. SUITE 430 CHESTERFIELD, MO 63017	GS
RAFFA, M ALI 6651 CHIPPEWA ST LOUIS, MO 63109	GS
RAHMAN, MOUDUDUR 911 S BRENTWOOD ST LOUIS, MO 63105	OP
RAICHLE, MARCUS E 710 JAMAICA CT ST LOUIS, MO 63122	N
RAIKAR, SUDHIR R 3200 S 13TH ST ST LOUIS, MO 63118	PD
RAILEY, MICHAEL T 1755 SO GRAND ST LOUIS, MO 63104	FP
RAINEY, ROBT 5165 LINDELL BLVD ST LOUIS, MO 63108	OM
RAJA-SEKHAR, RUDRAIAH 1325 S GRAND BLVD ST LOUIS, MO 63104	AN
RAMIREZ, SAMI G 11921 SACKSTON RIDGE DR ST LOUIS, MO 63141	IM
RAMSEY, MARY L 1325 S GRAND ST LOUIS, MO 63104	P
RAMSEY, ROBT H 11115 NEW HALLS FERRY R FLORISSANT, MO 63033	IM
RANDOLPH, BERNARD C 3737 N KINGSHIGHWAY ST LOUIS, MO 63115	CP
RANKIN, DIANE 4521 PERSHING ST ST LOUIS, MO 63108	CHP
RAO, ASWATH N 6500 CHIPPEWA ST ST LOUIS, MO 63109	ORS
RAO, CARLO 7521 W FLORISSANT ST LOUIS, MO 63136	
RAO, DEVINENI V 4511 FOREST PARK BLVD ST LOUIS, MO 63108	
RAO, S N 10822 ST CHARLES ROCK R ST ANN, MO 63074	
RAO, SUMATI 2269 FAIROYAL DR ST LOUIS, MO 63131	
RAPPOLD, OTTO H 500 NORTHWEST PLAZA-APT ST ANN, MO 63074	
RATCHESON, ROBT A BARNES HOSP-DEPT NEUR-S ST LOUIS, MO 63110	N
RATKIN, GARY A 4910 FOREST PARK #202 ST LOUIS, MO 63108	IM
RAY, JEAN L P O BOX 2114 DAMMAM SAUDI ARABIA, 00000	
RAYBUCK, HARRY E 3533 RITZ CENTER ST LOUIS, MO 63125	
REARDON, THOS F 723 S LACLEDE STATION RD ST LOUIS, MO 63123	
RECANO, RICARDO Q 4440 NAZARETH HILLS DR ST LOUIS, MO 631[illegible]	
REDDY, DYAPA S 430 WHITREE LANE CHESTERFIELD, MO 63017	
REDDY, M V 5400 ARSENAL ST ST LOUIS, MO 63139	
REDDY, PALLE K S P 660 S EUCLID AVE ST LOUIS, MO 63110	
REDDY, RANGA V 376 COUNTRY GLEN LANE ST LOUIS, MO 63141	
REDINGTON, JAMES C 911 S BRENTWOOD ST LOUIS, MO 63105	
REDLER, BRUCE H 4989 BARNES HOSP PLAZA ST LOUIS MO 63110	

ED, JOHNATHAN R ORG
100 NORTH EUCLID AVE
ST LOUIS, MO 63108
ED, LESLIE G GP
VA HOSPITAL
170 - J C
ST LOUIS, MO 63125
ESE, A VICTOR GP
120 E LOCKWOOD AVE
WEBSTER GROVES, MO 63119
ESE, LESTER T D
522 N NEW BALLAS RD-STE
ST LOUIS, MO 63141
EVES, GLEN I TR
USAF MED CTR
HMR 1739
KEESLER AFB, MS 39534
H, EDWARD P JR IM
615 S NEW BALLAS RD
ST LOUIS, MO 63141
H, THOS F R
6420 CLAYTON RD
ST LOUIS, MO 63117
HM, CHARLES H JR IM
621 S NEW BALLAS
SUITE 611
CREVE COEUR, MO 63141
ICHERT, TIMOTHY J OTO
777 S NEW BALLAS RD
ST LOUIS, MO 63141
ICHERT-PASZKIEWICZ, M IM
10063 ELISE DR
ST LOUIS, MO 63123
IDER, RICHARD A IM
353 RUE RENER
ST LOUIS, MO 63122
NECK, JOHN A OM
5410 RHODES
ST LOUIS, MO 63109
INEKE, FRED W PTH
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
NHARD, EDWARD H IM
4989 BARNES HOSPITAL PL
ST LOUIS, MO 63110
ISLER, DAVID M N
224 SO WOODS MILL RD
SUITE 550
CHESTERFIELD, MO 63017
ITER, FEDERICO B DR
11155 DUNN RD
ST LOUIS, MO 63136
TMAN, STANLEY IM
158 MAYFAIR PLAZA
FLORISSANT, MO 63033
JENT, ANTHONY J PD
4211 BAYLESS RD
ST LOUIS, MO 63123
DLEMAN, GEO F JR GS
818 OLIVE ST
#1023
ST LOUIS, MO 63101
DLEMAN, GEO F SR GS
818 OLIVE ST
#1023
ST LOUIS, MO 63101
NARD, MARVIN ORG
2821 N BALLAS RD STE 25
ST LOUIS, MO 63131
P, THEODORE J IM
158 MAYFAIR PLAZA
FLORISSANT, MO 63033
TER, LOUIS A OM
911 S BRENTWOOD BLVD
SUITE 100
ST LOUIS, MO 63105
ES, JOSE T AN
455 STEEPLE CHASE LANE
ST LOUIS, MO 63131
ES, LUIS A GS
9814 MAR-ANN CT
ST LOUIS, MO 63128
ES, ROSENDO A GP
10157 HAUSEEL CT
ST LOUIS, MO 63128
NOLDS, FREDERICK F ORS
10094 BRIARWOOD DR
ST LOUIS, MO 63124
NOLDS, JAMES A IM
224 S WOODS MILL RD
CHESTERFIELD, MO 63017
, DONG S AN
P O BOX 24507
ST LOUIS, MO 63141
, SEOUNG F GP
3551 EVERGREEN LANE
ST LOUIS, MO 63125
AUDO, J M PS
456 N NEW BALLAS RD
SUITE 266
ST LOUIS, MO 63141
HARDS, FRANK O GS
3737 N KINGSHIGHWAY
ST LOUIS, MO 63115
HARDSON, THOS F P
4989 BARNES HOSPITAL PL
ST LOUIS, MO 63110

RICHMOND, MICHAEL R IM
1542 WOODLAKE DR
CHESTERFIELD, MO 63017
RIDGEWAY, WM G OPH
6651 CHIPPEWA
ST LOUIS, MO 63109
RIES, DOUGLAS A GS
1511 HAMPTON HALL DR #12
CHESTERFIELD, MO 63017
RIGGIO, SALVATORE N PD
10349 WATSON RD
ST LOUIS, MO 63127
RILEY, JOHN J IM
12255 DEPAUL DR
SUITE 345
BRIDGETON, MO 63044
RINER, RONALD N CD
ST MARYS HEALTH CTR
6420 CLAYTON
ST LOUIS, MO 63117
RING, EDWARD M TS
522 N NEW BALLAS RD
SUITE 344
ST LOUIS, MO 63141
RINGENBERG, BEVERLY J FM
ST MARY'S HOSP
6420 CLAYTON RD
ST LOUIS, MO 63117
RITCHIE, FRANCES R GP
720 OLIVE ST 24TH FLOOR
ST LOUIS, MO 63101
RITTER, HUBERT A OBG
1035 BELLEVUE
RICHMOND HEIGHT, MO 63117
RIZZO, ADOLFO E CHP
9216 CLAYTON RD STE 105
ST LOUIS, MO 63124
ROARK, PAUL M OPH
187 CONCORD PLAZA
ST LOUIS, MO 63128
ROBBEN, GEORGE G IM
2821 NO BALLAS RD
ST LOUIS, MO 63131
ROBBINS, PHILIP CRS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
ROBERTS, HAROLD K IM
434 S HANLEY RD
CLAYTON, MO 63105
ROBERTS, JOHN L PD
500 S KINGSHIGHWAY
ST LOUIS, MO 63110
ROBERTS, JOHN P IM
3015 BARRETTS STATION R
KIRKWOOD, MO 63122
ROBERTSON, FRANK G OBG
456 NO NEW BALLAS RD
ST LOUIS, MO 63141
ROBINSON, EDITH C CHP
BRIAR OAK
ST LOUIS, MO 63132
ROBLEE, MELVIN A OBG
WESTMINSTER-CANTERBURY HS
1600 WESTBROOK APT 228
RICHMOND, VA 23227
ROCHE, MAURICE B ORS
4400 LINDELL BLVD
APT 3M
ST LOUIS, MO 63108
RODEN, VERNON J PD
456 N NEW BALLAS RD
ST LOUIS, MO 63141
RODRIGO, BERNARDO R AN
12537 ROYAL MANOR
ST LOUIS, MO 63141
RODRIGUEZ, UBALDO R GS
2650 TELEGRAPH RD
ST LOUIS, MO 63125
ROGERS, HUNTER B GS
819 LOCUST ST
ST LOUIS, MO 63101
ROLLO, JOHN L PTH
11133 DUNN RD
ST LOUIS, MO 63136
RON, AMIR P
25 CRESTWOOD DR
ST LOUIS, MO 63105
ROOS, ALBERT AN
660 S EUCLID
ST LOUIS, MO 63110
ROPER, CHAS L TS
BARNES HOSP PLAZA
ST LOUIS, MO 63110
ROSECAN, MARVIN IM
4910 FOREST PARK BLVD
ST LOUIS, MO 63108
*ROSELL, LOUIS V GP
950 FRANCIS PL
ST LOUIS, MO 63105
ROSEN, SAMUEL H P
35 N CENTRAL AVE
SUITE 541
ST LOUIS, MO 63105
ROSENBAUM, HARRY D OPD
522 N NEW BALLAS RD APT
ST LOUIS, MO 63141
ROSENBAUM, HERBERT E N
456 N NEW BALLAS #290
ST LOUIS, MO 63141

ROSENBERG, DALE H PS
303 PADOCK RD
BELLEVILLE, IL 62223
ROSENBERG, DAVID S OS
100 N EUCLID AVE
SUITE 1104
ST LOUIS, MO 63108
ROSENFELD, HENRY IM
1209 BETHESDA
ST LOUIS, MO '63117
ROSENTHAL, RANDALL P
522 N NEW BALLAS RD
ST LOUIS, MO 63141
ROSS, WM J PD
119 CHURCH ST
ST LOUIS, MO 63135
ROTH, JOHN J IM
522 N NEW BALLAS-STE 24
ST LOUIS, MO 63141
ROTHMAN, DAVID OBG
8033 DAVIS DR
ST LOUIS, MO 63105
ROTHWEILER, ROBT J OTO
11745 OLIVE ST RD
ST LOUIS, MO 63141
ROTSKOFF, KENNETH S OS
911 S BRENTWOOD
ST LOUIS, MO 63105
ROULHAC, GEO E NS
9043 LADUE
ST LOUIS, MO 63124
ROUSE, ERNEST T PUD
1034 S BRENTWOOD
ST LOUIS, MO 63117
ROUSE, ERNEST T III IM
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
ROUSH, GEO OM
800 N LINDBERGH
ST LOUIS, MO 63166
ROY, JOS A GS
12255 DE PAUL DR SUITE
BRIDGETON, MO 63044
ROYCE, ROBT K U
766 HIGH HAMPTON RD
ST LOUIS, MO 63124
ROYSTON, GRANDISON D OBG
RT #4 BOX 330H
HOPE, AR 71801
RUBENSTEIN, MELVIN P
818 HANAMOOR COURT
ST LOUIS, MO 63122
RUBIN, ROBT IM
4585 WASHINGTON ST STE
FLORISSANT, MO 63033
RUDI, HERBERT J GP
3606 GRAVOIS AVE
ST LOUIS, MO 63116
RUEHL, ALBERT F PS
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
RUHLING, RUDY IM
5203 CHIPPEWA
ST LOUIS, MO 63109
RUMELT, MICHAEL OPH
BALLAS-PARKWAY MEDICAL
456 N NEW BALLAS RD
CREVE COEUR, MO 63141
RUSAN, THOS F OBG
P O BOX 14533
ST LOUIS, MO 63155
RUSSELL, HERMAN E ORS
4451 NATURAL BRIDGE
ST LOUIS, MO 63115
RUWITCH, JOSEPH CD
16413 BARNES HOSPITAL PLAZA
ST LOUIS, MO 63110
RYALL, JO-ELLYN M P
SUITE 1160
1034 S BRENTWOOD BLVD
ST LOUIS, MO 63117
RYAN, JOHN J GP
28 RIDGETOP
CLAYTON, MO 63117
RYAN, ROBERT F JR OTO
621 S. NEW BALLAS RD
ST LOUIS, MO 63141
RYAN, ROBT F OTO
621 S NEW BALLAS RD STE
ST LOUIS, MO 63141
RYAN, THOMAS F IM
11155 DUNN RD
ST LOUIS, MO 63136
SABET, ABDOLLAH A P
901 CLAYTON RD
BALLWIN, MO 63011
SACHAR, LEO A GS
4910 FOREST PARK BLVD
#706
ST LOUIS, MO 63108
SAFDAR, SHABBIR H IM
4989 BARNES HOSPITAL PLAZA
ST LOUIS, MO 63110
SAFFA, JAMES D IM
621 S NEW BALLAS
ST LOUIS, MO 63141
SAGHIR, MARCEL T P
1034 S BRENTWOOD BLVD S
ST LOUIS, MO 63117

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SAHA, NITAI C U
620 PACKFORD
BALLWIN, MO 63011
SAHA, SUDHA R OBG
1040 N MASON RD
ST LOUIS, MO 63141
SALANGA, PERCIVAL B GP
8321 N BROADWAY
ST LOUIS, MO 63147
SALE, LLEWELLYN IM
4910 FOREST PARK
ST LOUIS, MO 63108
SALINAS, MARIO OBG
10004 KENNERLY RD.
ST LOUIS, MO 63128
SALMON, MICKEY L OPH
3916 RITZ CTR
ST LOUIS, MO 63125
SAMET, JOHN M CD
527 WARREN AVE
UNIVERSITY CITY, MO 63130
SAMMONS, HARRY C AN
RT 1 BOX 188A
HERMANN, MO 65041
SAMSON, BARRY L ORS
522 N NEW BALLAS RD
ST. LOUIS, MO 63141
SAMUDRALA, RAMULU OPH
12135 ROYAL VALLEY
CREVE COEUR, MO 63141
SAMUELS, LAWRENCE E D
224 S WOODS MILL ROAD
SUITE 320
CHESTERFIELD, MO 63017
SANCHEZ, ABELARDO B N
4783 WICKERWOOD DR
ST LOUIS, MO 63129
SANDERS, THEODORE E OPH
1034 S BRENTWOOD
ST LOUIS, MO 63117
SANDZA, JOSEPH G GS
216 S KINGSHIGHWAY
ST LOUIS, MO 63110
SANTANELLO, WILLIAM M GP
2525 N BROADWAY
ST LOUIS, MO 63102
SANTIBHAVAK, VIRA AN
621 S NEW BALLAS RD
ROOM 662
ST LOUIS, MO 63141
SANTILLANO, ANTONIO B PTH
2204 WELSCH INDUSTRIAL CT
ST LOUIS, MO 63141
SAPALA, JOSEPH C PTH
8111 STANFORD
ST LOUIS, MO 63130
SAPIENTE, RONALD A TR
1325 S GRAND
ST LOUIS, MO 63104
SASSER, WM F TS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
SATA, LINDBERGH S P
1221 S GRAND
ST LOUIS, MO 63104
SATO, GEO PD
369 HALCYON DRIVE
ST LOUIS, MO 63122
SATO, RICHARD W PD
777 SO NEW BALLAS RD
ST LOUIS, MO 63141
SAUER, DONALD C GS
4422 WESTMINSTER
ST LOUIS, MO 63108
SAUVAGE, JACQUES P OBG
4911 BARNES HOSP PLAZA
ST LOUIS, MO 63110
SAVCI, DOGAN H R
11712 WESTHAM
ST LOUIS, MO 63131
SAWYER, JAMES OBG
111 CHURCH ST
FERGUSON, MO 63135
SCADUTO, ANDREW J FP
439 N GEYER RD
ST LOUIS, MO 63122
SCARATO, GARRY R GP
240 SAN ANGELO
CHESTERFIELD, MO 63017
SCHAAN, ROBT C PD
6651 CHIPPEWA STE 316
ST LOUIS, MO 63109
SCHAEFER, BARRETT A R
777 S NEW BALLAS
ST LOUIS, MO 63141
SCHAFFER, GLENNON S GS
1333 TOPPING ROAD
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SCHAERER, JACQUES P NS
777 S NEW BALLAS RD
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SCHAPER, ERNEST H OM
7200 MANCHESTER AVE
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SCHECHTER, SAML E IM
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SCHEELE, PAUL M IM
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SCHEER, GEORGE E ORS
1034 SOUTH BRENTWOOD
ST LOUIS, MO 63105
SCHEFF, HAROLD GE
2821 N BALLAS RD #145
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SCHEFF, ROBERT J IM
2821 N BALLAS RD
ST LOUIS, MO 63131
SCHEIBE, ROBT G U
777 SO NEW BALLAS RD
ST LOUIS, MO 63141
SCHEIBLE, ROBERT F R
2821 N BALLAS RD
ST LOUIS, MO 63131
SCHELL, JAMES A II IM
ST JOHN'S MERCY MED CTR
615 SO NEW BALLAS RD
ST LOUIS, MO 63141
SCHENGBER, JOHN S P
12042 CREEKHAVEN DR
ST LOUIS, MO 63131
SCHIERMAN, WM D IM
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CLAYTON, MO 63105
SCHLANSKY, HOWARD J PD
500 S. KINGSHIGHWAY
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SCHLUER, ELMER P OTO
9 LONG MEADOWS
ST LOUIS, MO 63131
SCHMIDT, DENNIS A R
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SCHMIDT, EDMUND M GP
10513 ROTHWELL DR
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SCHMIDT, EDWIN H P
6651 CHIPPEWA ST
ST LOUIS, MO 63109
SCHMIDT, EDWIN H IM
1035 BELLEVUE AVE
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SCHMIEMEIER, ROY H GP
7351 WINDCREST DR
HOUSE SPRINGS, MO 63051
SCHNEIDER, ROBERT J IM
522 N NEW BALLAS RD
ST LOUIS, MO 63141
SCHNEIDER, SALLY L AN
621 S. NEW BALLAS RD
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SCHOECK, ALBERT F AN
44 MUIR FIELD
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SCHOEDINGER, GEORGE R III ORS
12615 OLD TESSON ROAD
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SCHOENECKER, PERRY L ORS
4989 BARNES HOSPITAL PL
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SCHOENTAG, JOHN S D
456 N NEW BALLAS RD
SUITE #317
CREVE COEUR, MO 63141
SCHONFELD, GUSTAV IM
507 S EUCLID
ST LOUIS, MO 63110
SCHOPP, ALVIN C ORS
10000 HIGHWAY 366
ST LOUIS, MO 63126
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6744 CLAYTON RD
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SCHULMAN, JEFFREY PD
657 NORTH MOSLEY RD
ST LOUIS, MO 63141
SCHULTZ, EARL R N
3009 NORTH BALLAS RD
SUITE 209
ST LOUIS, MO 63131
SCHULTZ, IRWIN IM
26 ARUNDEL PL
ST LOUIS, MO 63105
SCHULTZ, SAMUEL GP
1284 ENDERBURY
ST LOUIS, MO 63125
SCHULZ, RICHARD R
6150 OAKLAND
ST LOUIS, MO 63139
SCHWARTZ, HENRY G NS
600 S KINGSHIGHWAY
ST LOUIS, MO 63110

SCHWARTZ, HOWARD
601 S BRENTWOOD
ST LOUIS, MO 63105
SCHWARTZ, MELVIN M
2821 N BALLAS
ST LOUIS, MO 63131
SCHWARTZMAN, BERNARD
1512 BEDFORD FORGE DR
CHESTERFIELD, MO 63017
SCHWARZ, EDWARD H
4157 CLEVELAND
ST LOUIS, MO 63110
SCHWARZ, LUIS H
1035 BELLEVUE AVE
ST LOUIS, MO 63117
SCHWEISS, JOHN F
1414 WEST WIND
ST LOUIS, MO 63131
SCHWEITZER, JAMES M
3009 NEW BALLAS
ST. LOUIS, MO 63131
SCIORTINO, JOHN S
3654 S GRAND BLVD-STE 2
ST LOUIS, MO 63118
SCOPELITE, JOS A
8 STEEPLECHASE LANE
ST LOUIS, MO 63131
SCOTT, ELWIN P
3325 S GRAND
ST LOUIS, MO 63118
SCOTT, HILLARD L
7520 NATURAL BRIDGE RD
ST LOUIS, MO 63121
SCOTT, HORACE W
2639 MIAMI
ST. LOUIS, MO 63118
SCRUGGS, KAREN L
801 S BRENTWOOD BLVD
CLAYTON, MO 63105
SEABAUGH, OTTIS D
1512 BEDFORD FORGE DR
CHESTERFIELD, MO 63017
SEDGWICK, WILLIAM G
1034 S BRENTWOOD
ST LOUIS, MO 63117
SEED, JOHN
11 S MERAMEC
ST LOUIS, MO 63105
SEELEY, JAMES J
6651 CHIPPEWA
ST LOUIS, MO 63109
SEIB, GEO A
2323 LAFAYETTE AVE
ST LOUIS, MO 63104
SELVADURAI, PAUL N
2838 S GRAND BLVD
ST LOUIS, MO 63118
SENTURIA, BEN H
3 CLERMONT LANE
ST LOUIS, MO 63124
SENTURIA, HYMAN R
8 LITTLE LANE
ST LOUIS, MO 63124
SERTL, GEORGE O
3009 NORTH BALLAS ROAD
ROOM #105
ST LOUIS, MO 63131
SERTL, JAMES F
950 FRANCIS PL
ST LOUIS, MO 63105
SERTL, JOHN D
5203 CHIPPEWA
SUITE 307
ST LOUIS, MO 63109
SESSIONS, DONALD G
1960 GRASSY RIDGE RD
KIRKWOOD, MO 63122
SETZEN, MICHAEL
517 S EUCLID
ST LOUIS, MO 63110
SEUC, CARLOS A
1325 S GRAND
ST LOUIS, MO 63104
SEVASTIANOS, ARISTIDES E
7521 W FLORISSANT AVE
ST LOUIS, MO 63136
SEXTON, DANL L
911 S BRENTWOOD BLVD
CLAYTON, MO 63105
SEXTON, ELMER F
2537 TOWN & COUNTRY LAN
ST LOUIS, MO 63131
SHACKELFORD, GEORGIA A
1221 S GRAND BLVD
ST LOUIS, MO 63104
SHAH, ANWAR
1035 BELLEVUE AVE
ST LOUIS, MO 63117
SHAH, BHARAT K
221 BROOKTRAIL CT
ST LOUIS, MO 63141
SHAH, JITENDRA
10004 KENNERLY RD
ST LOUIS, MO 63128
SHAH, MODASER
5400 ARSENAL
ST LOUIS, MO 63139
SHAH, NAHEED F
14356 LAKE TAHOE DR
CHESTERFIELD, MO 63017

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211 N MERAMEC
ST LOUIS, MO 63105
AIKUN, GERALD L   R
14025 CROSSTRAILS
CHESTERFIELD, MO 63017
AMSI, ZIA U   IM
4930 LINDELL BLVD
ST LOUIS, MO 63108
ANAHAN, PHILIP J   GP
1 CHILTON LN
CREVE COEUR, MO 63141
ANER, THOS P   OBG
2821 NORTH BALLAS
ST LOUIS, MO 63131
ANK, ROBT E   IM
4566 SCOTT AVE
ST LOUIS, MO 63110
PLEIGH, JOHN B   IM
1034 S BRENTWOOD BLVD S
ST LOUIS, MO 63117
RP, AUSTIN R   PD
901 CLAYTON RD
BALLWIN, MO 63011
TZ, BURTON A   GE
10287 CLAYTON RD
ST LOUIS, MO 63124
TZ, GERALD S   A
522 N NEW BALLAS
ST LOUIS, MO 63141
TZ, RICHARD N   PS
456 N NEW BALLAS RD
ST LOUIS, MO 63141
W, EDWARD J   GS
3654 SOUTH GRAND BLVD
ST LOUIS, MO 63118
W, MICHAEL D   PD
408 FONTAINBLEAU ST
O'FALLON, IL 62269
W, RICHARD C   GS
216 S KINGSHIGHWAY
ST LOUIS, MO 63110
W, ROBERT D JR   FP
615 S NEW BALLAS RD
ST LOUIS, MO 63141
, JOHN F   NS
1325 S GRAND BLVD
ST LOUIS, MO 63104
EHAN, PAUL J   GS
1325 S GRAND BLVD
ST LOUIS, MO 63104
FNER, PAUL W   P
428 WOODSON RD.
ST LOUIS, MO 63114
TON, EARL W   IM
451 NATURAL BRIDGE AVE
T LOUIS, MO 63115
, HANG C   R
4907 GREENLEAF VALLEY DR
HESTERFIELD, MO 63017
, JEROME T   PD
695 S BRENTWOOD BLVD
T LOUIS, MO 63144
, VINCENT S   IM
2630 CONWAY DOWNS
REVE COEUR, MO 63141
IDAN, JOHN J   ORS
UITE #200
031 BELLEVUE AVE
T LOUIS, MO 63117
MAN, WARREN G   PD
0004 KENNERLY
T LOUIS, MO 63128
ROD, GLENN M   N
2255 DEPAUL DR
UITE 270
RIDGETON, MO 63044
WIN, CHAS S   GS
971 FLORA PL
T LOUIS, MO 63110
BER, WM   GS
16 S KINGSHIGHWAY BLVD
T LOUIS, MO 63110
LDS, JOHN B   R
325 S GRAND BLVD
T LOUIS, MO 63104
FLY, RAYMOND E   PS
660 VISTA
T LOUIS, MO 63110
ELY, ROBERT A   ORS
960 AUDUBON
T LOUIS, MO 63110
, FRANK O   P
034 S BRENTWOOD BLVD S
T LOUIS, MO 63117
, CHARLES D   PTH
015 N BALLAS RD
T LOUIS, MO 63131
, PAUL D   OTO
035 BELLVUE STE 417
LOUIS, MO 63117
N, JOS S   P
PAUL MEDICAL BLDG
255 DE PAUL DR SUI
IDGETON, MO 63044
N, HERMAN   R
1 N MERAMEC
AYTON, MO 63105

SICARD, GREGORIO A   GS
909 WOHL CLINIC
4960 AUDUBON
ST LOUIS, MO 63110
SIDDIQUI, FARZANNA Q   P
1550 A ST CLAIR AVE
GRANITE CITY, IL 62040
SIDDIQUI, JAWED H   IM
11115 NEW HALLS FERRY
#301
FLORISSANT, MO 63033
SIDDIQUI, M Y   GS
443 KAYMAR
TONAWANDA, NY 14150
SIEGFRIED, BARRY   PTH
BARNES HOSP DIV OF LAB MED
ST LOUIS, MO 63110
SIEMERS, GEO E   OBG
12660 LAMPLIGHTER SQUAR
ST LOUIS, MO 63128
SIESENER, HERBERT H   IM
NORTHLAND MED BLDG STE
ST LOUIS, MO 63136
SIGMUND, CHAS A   OPH
12255 DE PAUL RD
SUITE 109
BRIDGETON, MO 63044
SIGMUND, CHAS J   GE
325 FAWN MEADOWS
BALLWIN, MO 63011
SIGNORELLI, ANDREW J   US
12634 OLIVE ST RD
ST LOUIS, MO 63141
SILBER, SHERMAN J   U
456 NO N BALLAS RD
ST LOUIS, MO 63141
SILVER, BERND   OPH
211 NORTH MERAMEC
ST LOUIS, MO 63105
SILVERBERG, CHAS   IM
10004 KENNERLY RD
SUITE 315
ST LOUIS, MO 63128
SILVERMINTZ, SAUL D   IM
20 GRANADA WAY
ST LOUIS, MO 63124
SIMON, DAVID L   PD
7809 GANNON
ST LOUIS, MO 63130
SIMON, NATHAN M   PH
32 CRESTWOOD
ST LOUIS, MO 63105
SIMOWITZ, FREDRIC M   N
2850 W. CLAY ST.
ST CHARLES, MO 63301
SIMPSON, JOSEPH   IM
4511 FOREST PARK
ST LOUIS, MO 63108
SIMRIL, WAYNE A   DR
21 SOMERSET DOWNS
ST LOUIS, MO 63124
SIMS, WM A   AN
6 GREENBRIAR LANE
ST LOUIS, MO 63124
SINGH, GURCHARAN J   IM
6420 CLAYTON
ST LOUIS, MO 63117
SINGHAL, GOKUL C   IM
9350 GRAVOIS
ST LOUIS, MO 63123
SISK, CLARK   D
1442 SW DAVENPORT
PORTLAND, OR 97201
SISK, JAMES C   D
121 N BRENTWOOD BLVD
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SISLEN, DONALD R   IM
621 S NEW BALLAS ROAD
ST LOUIS, MO 63141
SISSON, RICHARD G   GS
4910 FOREST PARK BLVD
#206
ST LOUIS, MO 63108
SKEFFINGTON, MARY J   OPH
CLAYTON HOUSE RETIREMEN
1251 E CLAYTON RD
MANCHESTER, MO 63011
SKILLING, DAVID M   PUD
610 S BERRY RD
ST LOUIS, MO 63122
SKIMMING, W L   ORS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
SKINNER, JOHN S   IM
35 N CENTRAL
ST LOUIS, MO 63105
SLAVIN, RAYMOND G   A
1402 SOUTH GRAND
ST LOUIS, MO 63104
SLETTEN, IVAN W   P
11155 DUNN RD
ST LOUIS, MO 63136
SLIOM, CYRIL M   AN
DEPT ANESTHESIOLOGY
JEWISH HOSPITAL
ST LOUIS, MO 63178
SLOCUM, STEPHEN G   OPH
1034 S BRENTWOOD
SUITE 694
ST LOUIS, MO 63117

SLY, WM S   OS
500 S KINGSHIGHWAY BLVD
ST LOUIS, MO 63110
SMILEY, WM L   OBG
2715 UNION BLVD
ST LOUIS, MO 63113
SMIT, HERBERT M   OTO
8724 W KINGBURY
ST LOUIS, MO 63124
SMITH, BENJ F   OBG
RT 2, BOX 481
DIELRICH RD
MANCHESTER, MO 63011
SMITH, DERMOTT A   P
1221 S GRAND BLVD
ST LOUIS, MO 63104
SMITH, EMILY L   DR
510 S KINGS HIGHWAY
ST LOUIS, MO 63110
SMITH, GARLAND F   ORS
621 S NEW BALLAS RD
ST LOUIS, MO 63141
SMITH, HERBERT P   GP
2265 FLORIDA MANGO RD
WEST PALM BEACH, FL 33406
SMITH, HUGH R   OBG
6651 CHIPPEWA
ST LOUIS, MO 63109
SMITH, JAMES B   P
35 NORTH CENTRAL
ST LOUIS, MO 63105
SMITH, JOHN E   PH
4336 FOREST DE VILLE
ST LOUIS, MO 63129
SMITH, KATHLEEN   P
1420 GRATTAN ST
ST LOUIS, MO 63104
SMITH, KENNETH R   NS
1325 S GRAND BLVD
ST LOUIS, MO 63104
SMITH, KEVIN B   FP
14382 WOODLAKE DR
CHESTERFIELD, MO 63017
SMITH, MORTON E   OPH
660 S EUCLID ST
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SMITH, NORRIS W   OBG
3654 S GRAND BLVD
ST LOUIS, MO 63118
SMITH, ROBT W   R
10010 KENNERLY RD
ST LOUIS, MO 63128
SMITH, SIDNEY E   IM
2715 UNION ST
ST LOUIS, MO 63113
SOBKY, GEORGE   DR
1826 WATERFORD RIDGE DR
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SOHN, RICHARD   N
4989 BARNES HOSPITAL PL
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SOLANKI, NARESHKUMAR J   PD
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236 WEST CHANNEL RD
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SOLOMON, FELIX G   AN
11326 MOSLEY LANE
ST LOUIS, MO 63141
SOMMER, CONRAD S   P
200 S HANLEY RD
SUITE 700
ST LOUIS, MO 63105
SOMMER, ROSS B   IM
1034 S BRENTWOOD ST
ST LOUIS, MO 63117
SOORYA, DUSHYANT T   PD
14329 AITKEN HILL CT
CHESTERFIELD, MO 63017
SOORYA, NARENDIR T   P
6651 CHIPPEWA
ST LOUIS, MO 63109
SOPUCH, JOHN A   OBG
500 NORTHWEST PLAZA
ST ANN, MO 63074
SOSNA, JACOB P   IM
6651 CHIPPEWA
ST LOUIS, MO 63109
SOTO, ALBERT A   P
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SOULE, SAML D   OBG
911 S BRENTWOOD
ST LOUIS, MO 63105
SPALDING, DONALD G   R
621 S NEW BALLAS RD
ST LOUIS, MO 63141
SPECTOR, GENE W   R
4937 LACLEDE
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SPECTOR, GERSHON   OTO
517 SOUTH EUCLID
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ST JOHN, THOMAS C OM
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STAFFORD, WALTER R OPH
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*STAHLY, RANDALL L N
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5266 WESTMINSTER
ST LOUIS, MO 63108
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6304 S GRAND AVE
ST LOUIS, MO 63111
STAVRIDES, PETE D ORS
6500 CHIPPEWA
ST LOUIS, MO 63109
STEELE, JACK T US
3466 BRIDGELAND
SUITE 110
BRIDGETON, MO 63044
STEIN, HARRY J GP
6917 W FLORISSANT
JENNINGS, MO 63136
STEIN, PAUL M IM
777 SOUTH NEW BALLAS RD
ST LOUIS, MO 63141
STEINBERG, FRANZ U PM
216 SOUTH KINGSHIGHWAY
ST LOUIS, MO 63110
STEINER, ALEXANDER J PUD
141 N MERAMEC AVE STE 2
CLAYTON, MO 63105
STEPHEN, CHAS R AN
13 BALCON ESTATES
ST LOUIS, MO 63141
STEPHENS, LEROY J PD
218 SYLVESTER
ST LOUIS, MO 63119
STEPHENS, WM A ORS
RT 3 BOX 141
KEHRS MILL RD
CHESTERFIELD, MO 63017
STERGEN, NICK E OBG
5647 BERMUDA DR
ST LOUIS, MO 63121
STERKEL, RICHARD L IM
1035 BELLEVUE
ST LOUIS, MO 63117
STEWART, FRANCES H OBG
7161 DELMAR BLVD
ST LOUIS, MO 63130
STICKLE, ARTHUR W OPH
135 W ADAMS
KIRKWOOD, MO 63122
STICKLEY, LOUIS P PD
621 S NEW BALLAS RD
ST LOUIS, MO 63141
STIEHL, JAMES B ORS
12255 DEPAUL DR
BRIDGETON, MO 63044
STILLINGS, WAYNE P
1034 S BRENTWOOD
SUITE 1160
ST LOUIS, MO 63117
STINDEL, CHAS E OM
341 VIOLET LANE
ST LOUIS, MO 63119
STOHR, PAUL F NS
1035 BELLEVUE AVE
ST LOUIS, MO 63117
STOKES, JAMES M GS
224 S WOODS MILL RD
SUITE 340
CHESTERFIELD, MO 63017
[illegible], BRUCE U
11115 NEW HALLS FERRY
FLORISSANT, MO 63033
STONEMAN, WM PS
5217 WESTMINSTER PL
ST LOUIS, MO 63108

STRADER, RICHARD P AN
621 SOUTH NEW BALLAS RD
ST LOUIS, MO 63141
STRATMANN, HENRY G IM
1325 S GRAND
ST LOUIS, MO 63104
STRELZOW, VICTOR V OTO
1325 S GRAND
ST LOUIS, MO 63104
STRICKLAND, JAMES C ORS
1325 S GRAND BLVD
ST LOUIS, MO 63104
STROBACH, KURT F OBG
3394 MC KELVEY ROAD
BRIDGETON, MO 63044
STROMINGER, DONALD B PDA
4989 BARNES HOSP PLAZA-
ST LOUIS, MO 63110
STRONSKY, DAVID ORS
533 COUCH #220
ST LOUIS, MO 63122
STROUD, MALCOLM H OTO
517 SOUTH EUCLID
ST LOUIS, MO 63110
STRYKER, GAROLD V OS
#1 GULF MANOR DR
VENICE, FL 33595
STRYKER, WM I P
12 OAKLEIGH LANE
ST LOUIS, MO 63124
STUEBNER, ROLAND W GS
11964 ADORONO PLACE
SAN DIEGO, CA 92128
SUBA, ANTONIO R GS
141 N MERRAMEC AVE
ST LOUIS, MO 63105
SUDEKUM, JOSEPH M ORS
841 CHAPEL OAKS
ST LOUIS, MO 63131
SUDHOLT, ALFRED F OBG
500 NORTHWEST PLAZA STE
ST ANN, MO 63074
SULLIVAN, CLEMENT J IM
6744 CLAYTON RD RM 311
ST LOUIS, MO 63117
SULLIVAN, WM K GPM
#23 CONWAY LANE
ST LOUIS, MO 63124
SULLIVAN, WM W IM
12166 BIG BEND BLVD
KIRKWOOD, MO 63122
SUMER, CENGIZ M P
220 RUNNYMEDE DR
ST LOUIS, MO 63141
SUMER, EMEL A CHP
220 RUNNYMEDE DR
ST LOUIS, MO 63141
SUMMERS, JOHN B PD
10349 WATSON RD
ST LOUIS, MO 63127
SUMMERS, THOS F GP
#100 N EUCLID
P O BOX 23053
ST LOUIS, MO 63156
SUNDERMAN, RAYMOND C IM
1600 MONTICELLO DR
ST LOUIS, MO 63138
SUNSHINE, HERBERT U
707 WAYFIELD
ST LOUIS, MO 63132
SUSMAN, NOAH R
8430 OLD BONHOMME
ST LOUIS, MO 63132
SUTTER, RICHARD A OM
819 LOCUST ST
ST LOUIS, MO 63101
SVANCAREK, WM P OS
408 OLD MERAMEC STA RD
MANCHESTER, MO 63011
SWAYKUS, BERNARD T IM
3394 MC KELVEY RD
BRIDGETON, MO 63044
SWEET, HERBERT C PUD
3 ST JAMES COURT
WEBSTER GROVES, MO 63119
SWOPE, JOS A IM
10004 KENNERLY
ST LOUIS, MO 63128
SYLVANOVICH, W R GP
ST JOHNS MERCY MED CTR
615 SOUTH NEW BALLAS
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TAILOR, CHANDRAKANT C R
510 S KINGSHIGHWAY
ST LOUIS, MO 63110
TALABAN, RAYMUNDO D GS
703 W MAIN
FREDERICKTOWN, MO 63645
TANAKA, GEO M IM
59 GRASSO PLAZA
ST LOUIS, MO 631[illegible]3
TANOSHEWINSIRIKUL F R
1515 LAFAYETTE
ST LOUIS, MO 63104
TANNENBAUM, JEROME S IM
17 GODWIN LANE
ST LOUIS, MO 631[illegible]
TAPPER, STEPHEN U
1301 KENDON DR
ST LOUIS, MO 631[illegible]1

TASHMA, SIGMUND S
904 DALKEITH LANE
ST LOUIS, MO 63132
TATKOW, ROBERT W
456 N NEW BALLAS
SUITE 369
ST LOUIS, MO 63141
TAULBEE, WAYNE A
8164 BLUEWATER TRAIL
ST LOUIS, MO 63123
TAUSSIG, BARRETT L
513 PAMELA LANE
ST LOUIS, MO 63122
TAUTE, HERMANN
2821 N BALLAS RD
ST LOUIS, MO 63131
TAYLOR, EUGENE D
2715 N UNION
ST LOUIS, MO 63113
TAYLOR, ROBERT W JR
653 S NEW BALLAS RD
APT 3A
ST LOUIS, MO 63141
TAYOB, ANVER A
1325 S GRAND BLVD
ST LOUIS, MO 63104
TEKWANI, HIRALAL T
3555 SUNSET OFFICE DR
ST LOUIS, MO 63127
TEMPORAL, ADELAIDE
10048 HILLTOP DR
ST LOUIS, MO 63128
TEMPORAL, JOSE A
12660 LAMPLIGHTER SQ
ST LOUIS, MO 63128
TEPPER, ARNOLD
777 S NEW BALLAS RD
ST LOUIS, MO 63141
TERNBERG, JESSIE L
4960 AUDUBON AVE
ST LOUIS, MO 63110
TESS, ALLEN E
1245 GRAHMA RD STE 411
FLORISSANT, MO 63031
TESS, MELVIN J
1501 SWITZER AVE
ST LOUIS, MO 63147
THALE, THOS R
11 S MERAMEC
SUITE 1000
CLAYTON, MO 63105
THAWLEY, STANLEY
BARNES HOSPITAL PLAZA
ST LOUIS, MO 63110
THIEL, JOHN A
621 SOUTH NEW BALLAS RD
ST LOUIS, MO 63141
THIELE, BELMONT R
10201 THORNWOOD
ST LOUIS, MO 63124
THIERAUF, CHAS [illegible]
9444 SUNNY CREEK
ST LOUIS, MO 631[illegible]
THOMA, GEO F
3556 CAROLINE
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16 CHESHIRE CT
COLLINSVILLE, IL 62234
THOMAS, LEWIS J
700 S EUCLID ST BLD COM
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THOMAS, ROY L
300 MANSION HOUSE CENTER
APT 140[illegible]
ST LOUIS, MO 6310[illegible]
THOMASSON, MARY W
525 ST FRANCOIS PLACE
FLORISSANT, MO 63031
THOMPSON, MERLYN B
[illegible] N NEW BALLAS RD
ST LOUIS, MO [illegible]141
THOMSON, WILLIAM M
[illegible] S WOODS MILL RD
CHESTERFIELD, MO [illegible]301
THURMANN, MANFRED
950 ST FRANCIS PL
ST LOUIS, MO [illegible]
THURSTON, DONALD L
500 SO KINGSHIGHWAY
ST LOUIS, MO [illegible]110
TICHENOR, ROBT W
BOX 956[illegible] CARRINGTON STA
ST LOUIS, MO 631[illegible]
TIEFENBRUNN, SHARON D
6651 CHIPPEWA
SUITE [illegible]
ST LOUIS, MO [illegible]109
TILLMAN, ERNEST
806 N LINDBERGH
ST LOUIS, MO 63141
TILLMAN, MARY [illegible]
4511 FOREST PARK
SUITE [illegible]01
ST LOUIS, MO [illegible]
TINDALL, ROBT N
1 COLONY POINT DR
APT [illegible]C
PUNTA GORDA, FL [illegible]

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UGLY, EDITH S P
12 HACIENDA DR
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2821 N BALLAS RD
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ST LOUIS, MO 63109

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ST LOUIS, MO 63110

VANDIVORT, PAUL M P
1221 S GRAND
ST LOUIS, MO 63104

VANDOVER, JOHN T GP
3 GRANTWOOD LANE
ST LOUIS, MO 63123

VANNIER, MICHAEL W R
510 S KINGSHIGHWAY
ST LOUIS, MO 63110

VARDELEON, ROGELIO V GS
327 CONWAY LAKE DR
ST LOUIS, MO 63141

VARGAS, TEODORO GP
319 N FIRST ST
PACIFIC, MO 63069

VATTEROTT, PAUL B GP
55 CHAMINADE DR
ST LOUIS, MO 63141

VATTEROTT, PAUL B JR IM
1538 WOODLAKE DR
CHESTERFIELD, MO 63017

VAUGHAN, J R OBG
940 GOLF COURSE DR
ST LOUIS, MO 63132

VELASCO, ERNESTO T US
1704 S BROADWAY
ST LOUIS, MO 63104

VELUZ, BENITO J IM
5203 CHIPPEWA
ROOM 209
ST LOUIS, MO 63109

VENABLE, M P OPH
6744 CLAYTON RD
ST LOUIS, MO 63117

VENTUS, MANUEL A GS
8321 N BROADWAY
ST LOUIS, MO 63147

VERDE, JULIAN N R
9806 MEADOWFERN DR
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VEST, JAMES C TS
12255 DE PAUL DR STE 15
ST LOUIS, MO 63044

VIAMONTES, JORGE A P
777 S NEW BALLAS RD
ST LOUIS, MO 63141

VIANZON, ELIZABETH R OBG
14356 RAINY LAKE DR
CHESTERFIELD, MO 63017

VICKAR, GARRY M P
1245 GRAHAM RD RM 506
FLORISSANT, MO 63031

VIDHEECHAROEN, SOMBOON NS
11133 DUNN RD
ST LOUIS, MO 63136

VIERLING, STEPHEN F ORS
1325 S GRAND BLVD
ST LOUIS, MO 63104

VIERS, WAYNE A OTH
135 W ADAMS
ST LOUIS, MO 63122

VIJUNGCO, HERMINIA D AN
115 LADUE LAKE DR
CREVE COEUR, MO 63141

VILAR, ESTER G PTH
1755 SO GRAND
ST LOUIS, MO 63104

VILAR, PIO M P
4211 BAYLESS
ST LOUIS, MO 63123

VILLAFUERTE, NILA A AN
12563 HIBLER WOODS DR
ST LOUIS, MO 63141

VILLAFUERTE, RENATO G PTH
716 HANLEY INDUSTRIAL COURT
ST LOUIS, MO 63144

VILLAMAR, ELIZABETH N OBG
14227 RELLFOOT LAKE DR
CHESTERFIELD, MO 63017

VILLARAMA, ANTONIO P GS
12864 TOPPING MEADOWS
ST LOUIS, MO 63131

VILORIA, ALBERTO B GS
10260 OLDE MILLING RD
ST LOUIS, MO 63131

VINJAMURI, MADHAV R AN
660 S EULID AVE
ST LOUIS, MO 63110

VIRANT, JOHN A OTO
119 SPOEDE RD
ST LOUIS, MO 63141

VITALE, ANTHONY J GP
7150 NATURAL BRIDGE RD
ST LOUIS, MO 63121

VITALE, NICHOLAS S GP
614 COACHLIGHT LANE
HAZELWOOD, MO 63042

VITALE, STEPHEN J D
14377 WOODLAKE DR
CHESTERFIELD, MO 63017

VITALE, THOMAS J GS
5878 DELOR
ST LOUIS, MO 63109

VITALE, VICTORIA A GS
5878 DELOR
ST LOUIS, MO 63109

VITT, EDWIN F GS
16 HAMPTON VILLAGE
ST LOUIS, MO 63109

VIVIANO, JOS G OBG
16 HAMPTON VILLAGE
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VOLLMAR, LEWIS C D
10004 KENNERLY RD
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VONGSNICHAKUL, SITTICHAI GS
1755 S GRAND BLVD
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12255 DEPAUL DR SUITE 865
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WACKER, LEO L GP
3563 RITZ CENTER DR
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WAGAN, PRIMITIVA C CD
300 S GRAND
ST LOUIS, MO 63103

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3009 NORTH BALLAS ROAD
ROOM #105
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WALL, EMMETT D IM
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KIRKWOOD, MO 631[illegible]

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[illegible] S BRENTWOOD BLVD
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9188 RUSTLEWOOD [illegible]
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WALTERS, RICHARD C 7511 BIG BEND BLVD WEBSTER GROVES, MO 63119	US
WALTHER, ROY A 9440 MIDLAND ST LOUIS, MO 63114	OBG
WALTMAN, STEPHEN R 342 MAGNA CARTA DR ST LOUIS, MO 63141	OPH
WALZ, BRUCE J 510 S KINGSHIGHWAY BLVD ST LOUIS, MO 63110	TR
WANLESS, ROBERT C 721 E WASHINGTON ST BELLEVILLE, IL 62221	PS
WARD, ROBT L 2047 EMERALD CREST CT CHESTERFIELD, MO 63017	FP
WARREN, JAMES C 4911 BARNES HOSP ST LOUIS, MO 63110	OBG
WASHINGTON, WALTER 3400 N KINGSHIGHWAY BLV ST LOUIS, MO 63115	GS
WASSERMAN, ALAN 615 S NEW BALLAS RD ST LOUIS, MO 63141	OBG
WASSERMAN, HELMAN C 911 S BRENTWOOD BLVD ST LOUIS, MO 63105	OBG
WASSERMAN, TODD H 4511 FOREST PARK BLVD ST. LOUIS, MO 63108	TR
WATERS, HUGH R 224 S. WOODS MILL RD CHESTERFIELD, MO 63017	IM
WATTS, SAMUEL M II 615 S NEW BALLAS ST LOUIS, MO 63141	FP
WAXELMAN, ROGER J 309 MANCHESTER RD MANCHESTER, MO 63011	PD
WAYNE, SHERWYN L 533 COUCH AVE SUITE 220 ST LOUIS, MO 63122	ORS
WEBB, PAUL B 6651 CHIPPEWA ST ST LOUIS, MO 63109	OPH
WEBBER, WM B 1035 BELLEVUE AVE ST LOUIS MO 63117	PS
WEBER, J F 533 COUCH AVE SUITE 220 ST LOUIS, MO 63122	ORS
WEBER, SOL 827 S HANLEY RD CLAYTON, MO 63105	IM
WEBSTER, RAYMOND L 24 COMMANDO AVENUE POPE AFB, NC 28308	AM
WEE, GEO C #24 WINCHESTER PLAZA 202 MANCHESTER RD ELLISVILLE, MO 63011	GP
WEEKS, PAUL M 4960 AUDUBON AVE ST LOUIS, MO 63110	PS
WEILER, THOS J 615 SOUTH NEW BALLAS RD ST LOUIS, MO 63141	OS
WEINHAUS, ROBT S 868 ALBEY LANE ST LOUIS, MO 63132	P
WEIR, DON C 625 SHERWOOD DR ST LOUIS, MO 63119	R
WEIR, ROYAL A 1012 CLA TER ET DR BALLWIN, MO 63011	GS
WEIS, LANDY 11133 DUNN RD ST LOUIS, MO 63136	PTH
WEISE, DONNA 615 S NEW BALLAS RD ST LOUIS, MO 63141	PTH
WEISMAN, RENATE D 500 NORTHWEST PLAZA SUITE 411 ST ANN, MO 63074	OBG
WEISS, ALAN N 4989 BARNES HOSP PLAZA 17312 W PAVILION ST LOUIS, MO 63110	CD
WEISS, HOWARD 141 N MERAMEC AVE ST LOUIS, MO 63105	N
WEISS, STUART BARNES HOSPITAL PLAZA SUITE 16304 ST LOUIS, MO 63110	N
WELDON, CLARENCE S SUITE 3108 QUEENY TOWER 4989 BARNES HOSP PLZ ST LOUIS, MO 63110	TS
WELDON, VIRGINIA V 500 S KINGSHIGHWAY ST LOUIS, MO 63110	IM
WELGUS, HOWARD G 109 OLD OAK BALLWIN, MO 63011	D
WELNER, AMOS 4940 AUDUBON ST LOUIS, MO 63110	P
WELNER, ZILA 500 S KINGSHIGHWAY ST LOUIS, MO 63110	P
WELSH, LAURENCE C 1930 UNION RD ST LOUIS, MO 63125	GP
WENNEKER, ALVIN S 8112 DELMAR BLVD ST LOUIS, MO 63130	IM
WENTZEL, LOUIS R 2537 HIRAM WICHITA, KS 67217	US
WERNER, WM A 6651 CHIPPEWA ST LOUIS, MO 63109	IM
WEST, JOS W 1800 W ADAMS ST LOUIS, MO 63122	OTO
WESTERMAN, ROBT N 6744 CLAYTON RD ST LOUIS, MO 63117	GS
WESTRUP, ELLSWORTH A 8540 BIG BEND RD WEBSTER GROVES, MO 63119	GP
WEYERICH, LEON F 152 LINDEN AVE CLAYTON, MO 63105	GP
WEYERICH, NOEL F 621 S NEW BALLAS RD ST LOUIS, MO 63141	IM
WEYGANDT, GLENN R 10322 OXFORD HILL DR ST LOUIS, MO 63141	AN
WHEELER, THOMAS F 615 S NEW BALLAS CREVE COEUR, MO 63141	FM
WHITE, BRUCE I 456 N NEW BALLAS RD ST LOUIS, MO 63141	PS
WHITE, NEWTON B 10004 KENNERLY RD SUITE 355 ST LOUIS, MO 63128	ORS
WHITENER, MILES C 9440 MIDLAND ST LOUIS, MO 63114	IM
WHITENER, PAUL R 15201 OLIVE BLV AP 274 CHESTERFIELD, MO 63017	GP
WHITESIDE, LEO A SUITE #360 12255 DEPAUL DR BRIDGETON, MO 63044	ORS
WHITTICO, JAMES M 2715 UNION BLVD ST LOUIS, MO 63113	GS
WIANT, JAMES R 621 S NEW BALLAS RD ST LOUIS, MO 63141	PUD
WIEDERSHINE, LEONARD I [illegible] N NEW BALLAS RD STE ST LOUIS, MO 63141	P
WIEGAND, HERBERT C 4989 BARNES PLAZA STE 3 ST LOUIS, MO 63110	IM
WIENKE, EUGENE C 2204 WELSCH INDUSTRIAL CT ST LOUIS, MO 63141	PTH
WILBOIS, RONALD P SUITE #208 3009 NORTH BALLAS RD ST LOUIS, MO 63131	OBG
WILKINSON, DAVID 10007 KENNERLY RD ST LOUIS, MO 63128	NS
WILLIAMS, CAROL F 950 FRANCIS PL SUITE 303 ST LOUIS, MO 63105	GYN
WILLIAMS, JOSEPH 950 FRANCIS PL ST LOUIS, MO 63105	ORS
WILLIAMS, PAUL A 615 S. NEW BALLAS RD CREVE COEUR, MO 63141	FP
*WILLIAMS, ROBERT L 5400 ARSENAL ST LOUIS, MO 63139	P
WILLIAMS, ROY J 3409 N UNION ST LOUIS, MO 63115	IM
WILLIAMS, ROY J JR 4989 BARNES HOSP PLAZA ST LOUIS, MO 63110	IM
WILLIAMSON, WALTER F RT #1 BOX 125W WINTER GARDEN, FL [illegible]	OM
WILLIS, H R 646 N KIRKWOOD RD ST LOUIS, MO 63122	GS
WILLMAN, VALLEE L 3660 VISTA ST LOUIS, MO 63110	
WILSON, KEITH S 9 CRESTWOOD DR ST LOUIS, MO 63105	
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— *Notes* —

1981-1982 Policy Manual of the Missouri State Medical Association

This manual shall be a guide for MSMA members to the stand taken by the House of Delegates of the Missouri State Medical Association on issues involving Association policy.

The manual will be updated and revised according to House actions. The date in parentheses following each policy statement denotes the year it was adopted by the House.

Abortion

n abortion should be considered illegal if per f med by anyone other than a licensed physician a place other than a licensed hospital. (1970)

Acupuncture

e MSMA urges the Missouri State Board of gistration for the Healing Arts to utilize such gal and statutory powers as may be available to clare that the principles apparently involved in t practice of acupuncture and shiatsu, if found t be scientifically valid and medically beneficial uld fall under the definition of the practice of edicine. (1973)

Alcoholism — Ajunctive Treatment

e MSMA supports the use of the adjunctive t atment resources of Alcoholics Anonymous, -Anon, Ala-Teen and the National Council of oholism local affiliate by physicians in treating p ients. (1979)

Alcoholism — Pharmacy Liaison

e MSMA supports a closer cooperation bet een physicians and pharmacists in a public e ucation program regarding the problem of a use of legally prescribed drugs and alcohol. The p fessional education of physicians and pharmac ts should include courses in these areas. (1979)

Alcoholism — Public Education

uniform policy regarding alcohol and drug a use education in schools is supported. In-depth e ucation should be provided to Driver Educat n classes regarding drug and alcohol abuse as r ated to traffic safety. (1979)

Amphetamines — Use

The MSMA asks its members to restrict their use of amphetamines and other stimulant drugs to the treatment of specific, well-recognized medical indications such as narcolepsy, hyperkinesia, mild depression and starter doses for obesity. (1971)

Armed Services

The MSMA encourages the Department of Defense to take steps to attract physicians to serve in the Armed Forces Reserve. Physicians should be utilized according to their capabilities and training and compensated appropriately for their time. (1979)

Board of Healing Arts

The State Board of Healing Arts should be provided with a wide range of discipline powers including requiring errant doctors to seek counseling or additional education. Also, every state should be informed when any doctor has his license suspended, revoked or is placed on probation. (1976)

The MSMA opposes any legislation which would dilute the licensing power of the State Board of Registration for the Healing Arts to license those physicians of good ethical and moral character. (1975)

Certificate-of-Need

Any Certificate-of-Need law in Missouri should completely exempt private physicians and their offices from provisions of the legislation and contain a dollar limit of at least $500,000 before a Certificate is required in remodeling or constructing of health care facilities. (1976)

CHAMPUS

The MSMA recommends that CHAMPUS discontinue the use of nonphysician health care providers due to a lack of documentation of cost-effectiveness and the resulting lower standard of health care for patients. (1981)

Chemotherapeutic Costs

The MSMA should sponsor appropriate legislation that would make mandatory the offering of insurance coverage for reimbursement of chemotherapeutic agents, particularly on an outpatient basis. (1977)

Chiropractic Policy

The MSMA is unaware of any scientific evidence that proves that spinal manipulation and adjustment are appropriate treatment for such health conditions as hypertension, heart disease, stroke, cancer, diabetes and infections. Therefore, the MSMA will continue to warn the public of the health hazards of entrusting the treatment of such conditions to practitioners who maintain that all disease is caused by the misalignment of the spinal vertebrae and can be cured by manual manipulation and adjustment of the spine.

A physician may refer a patient for diagnostic or therapeutic services to another physician, licensed limited practitioner or any other licensed provider of health care services whenever the physician feels that these services will benefit the patient. As in the case with physician referrals, limited practitioner referrals should be based on their individual competence and ability to perform service to the patient.

The MSMA also supports the right of every physician to choose whom he or she will accept as patients and also exercise his or her choice by the terms of contractual agreements with other physicians, medical groups, hospitals or other institutions. (1981)

CME Accreditation

The MSMA supports the concept that continuing medical education accrediting should be conducted at the state level with the AMA as the only CME accrediting body. (1980)

Community Professional Directories

It is not unethical for a physician to authorize the listing of his name and practice in a directory for professional or lay use which is intended to list all physicians in the community on a uniform and non-discriminatory basis. The listing shall not include any self-aggrandizing statement or qualitative judgment regarding the physician's skills or competence. The *American Medical Directory* provides an example of the kind of information that may be properly listed in national as well community directories for health service pers- nel. Likewise, specialities or specialty practi used in the *American Medical Directory* sho set the pattern for specialty designations. (19

Confidentiality

The MSMA encourages the enactment of legis- tion which would fully protect the confidential of medical records and of professional or p review activities which are based on review a evaluation of such records. (1978)

Cost Effectiveness

The MSMA encourages individual physicians help moderate increases in medical care costs avoiding over-utilization and by using approp- ate restraints to keep fee increases more in l with the annual cost of living increases. The As- ciation endorses the Voluntary Effort to restr increases in hospital costs. (1978)

Death — Definition

A person shall be considered dead if in t announced opinion of a physician, based ordinary standards of medical practice, he h experienced an irreversible cessation of sp- taneous respiratory and circulatory functions. the event that artificial means of support precl a determination that these functions have ceas a person shall be considered dead if in the - nounced opinion of a physician, based on or- nary standards of medical practice, he has exp- enced an irreversible cessation of spontane brain functions. Death shall have occurred at time when the relevant functions ceased. (19

Drugs — Generic Prescribing

The MSMA opposes governmental interfere into the practice of medicine through manda generic prescribing of drugs. (1976)

Drugs — Use of Combination of

The Federal Food and Drug Administrati should carefully study the prescribing habits physicians before discontinuing a combination drugs packaged together. (1974)

Drunk Drivers

The MSMA agrees to cooperate with the Legis- ture or proper agencies to remedy the danger problem of drunk drivers. (1974)

Education — Patient

e MSMA adopts the following guidelines for
ird party reimbursement for patient education:

The goal of patient education programs shall be to improve health and the delivery of health care services through cooperative efforts of informed patients and health professionals.

Patient education programs shall be provided under the guidance of an educational committee comprised of members of the health professions, and administration, and consumers.

Patient education committees will be responsible for the establishment, maintenance, and evaluation of all patient education programs.

Patient education services shall consist of planned efforts, with stated goals and objectives, based upon identifiable needs of patients and the resources of the health professionals.

Patient education services shall be provided under the direction of a practicing physician and a trained educator and must be appropriate to the immediate health needs of the patient.

Participation in such programs shall be by prescription of a practicing physician and shall be documented in the patient's chart. (1975)

Education — School Health

ctual, academically founded courses should be
veloped and implemented by the Missouri De-
rtment of Education to teach human physiology
d pathophysiology at the elementary and sec-
dary levels of the school system. (1974)

County medical societies are urged to work
th local school districts to assist in providing
mprehensive health education programs and
e state colleges of Missouri are urged to prepare
alified health instructors trained to integrate
alth concepts into all the courses they teach.
72)

Fireworks

e MSMA supports a ban on the sale of fire-
rks in Missouri. (1976)

Fluoridation

e MSMA, realizing the medical importance of
tural occurring fluorine taken in proper con-
ntration into the human body, recommends the
ding of fluorine to all drinking water systems in
ssouri in the concentration of one part per
llion. (1972)

Health Systems Agencies

The MSMA supports a program of voluntary, locally based health planning designed to address particular local and regional needs and favors legislation repealing the National Health Planning Act. (1981)

Home Health Care

The concept of home health care and visiting nurses care as a proper and economical way to bring quality health care to Missouri citizens not requiring more expensive and acute care is favored by the Association. (1972)

Hospice

The MSMA supports legislation to encourage the establishment of physician-directed hospice care. (1978)

Hospital — Preadmission Certification

The MSMA will continue to oppose implementation of hospital preadmission certification. (1974)

Insurance — Charge for Extra Claim Forms

Physicians should feel free to charge for the additional service of filing more than one insurance claim form, especially if a different claim form is required rather than a photocopy of the original claim form. (1973)

Insurance — Maternity Coverage

The MSMA supports inclusion in all insurance policies for those in childbearing years of a clause providing complete maternity coverage.

In order to provide continuity of coverage, the following eligibility period should be written into all insurance policies concerning benefits for obstetric care: "A pregnancy which begins while the insurance is in force should be covered until the termination of the puerperium and until the newborn infant is discharged from the hospital to home care." (1974)

Insurance — Psychiatric Illnesses

The MSMA recommends that the State Commissioner on Insurance requires that all health and accident insurance policies sold in Missouri provide coverage for psychiatric illnesses equivalent to benefits for other medical and physical illnesses. (1978)

Laboratory — Collecting Fee

The MSMA supports payment under Medicaid to the physician for his service in collecting a specimen used for tests performed in an outside laboratory. (1977)

Licensing — Felon

As a general rule, the MSMA opposes the granting of a license to practice medicine to any physician who has been convicted of a felony. (1973)

Licensing — FMGs

The MSMA endorses the policy of accepting the "Fifth Pathway" for physician licensure in Missouri. (1975)

Licensure — Federal

The MSMA opposes any moves to require Federal licensure of health manpower. (1976)

Malpractice — Countersuits

Any Missouri physician found not to be negligent in a malpractice suit shall have the assistance of the MSMA in determining if there exists a reasonable basis for the physician to commence an action for malicious prosecution arising out of such case. (1976)

Medicaid Program

The MSMA no longer endorses the Title XIX Medicaid Program because of the unreasonably low level of reimbursement for physicians' services. (1978)

Medical Examiner System

The establishment of the county medical examiner system as a replacement for the county coroner system is strongly recommended. (1971)

Motorcycle Head Gear

The MSMA urges all motorcyclists to wear protective head gear (helmets) to prevent death and disability. (1977)

MSMF Loans

The Missouri State Medical Foundation requires membership in their state medical association for those medical students eligible for membership and receiving financial assistance from the Foundation. (1980)

National Health Insurance

Any system of national health insurance must be designed with the consultation and aid of practicing physicians with the welfare of the patient as the guiding principle. A mechanism should be provided so the patient realizes the value of medical services to the point of real participati in the payment for those services. (1974)

The MSMA endorses the American Medi Association's bill as the national health insuran plan best suited to maintaining the high quality American medicine. (1976)

Nursing Education

The MSMA supports all present forms of nursi education as being essential to meeting the heal care needs of the state and local communit (1980)

Nurse Practitioners

The MSMA supports the doctrine that physicia retain control of medical care and will challen any person who is practicing medicine without license, in the courts of law if necessary. (197

Optometrists — Drugs

The Association opposes the expansion of tl Missouri Optometric Act which would allow tl use of drugs in the practice of optometry. (197

Osteopaths — Association With

Medical doctors may consult or associate wi Doctors of Osteopathy and participate in pos graduate education specifically designed for the needs. (1965)

Osteopaths — Membership

Both local and state medical societies may acce for full membership osteopathic physicians wl are licensed to practice medicine in Missou (1970)

Physician's Assistants

The MSMA opposes state licensure or certific tion of additional health care personnel becau there is no reason to accept a second class (secon level) of medicine. (1979)

Primary Medical Care

Primary medical care shall be defined as only th care given by a licensed graduate of a medical osteopathic school. (1977)

PSRO

The MSMA will work to insure that patient care of a high quality, appropriate duration and is re dered in appropriate setting at a reasonable co The MSMA supports the elimination of all go ernment directed peer review programs, inclu ing PSRO. (1981)

Seat Belts

e MSMA favors passage of state laws requiring
e of seat belts in motor vehicles. (1974)

Second Opinions in Surgery

e MSMA, while realizing the value of consulta-
n, opposes the concept of mandatory second
inions and supports the position that when
ond or more opinions are mandated by any
ty that this party is responsible for any con-
tation fee and the choice of consultant is the
ponsibility of the patient and/or the attending
sician. (1978)

Smoking

e MSMA supports legislation directed at desig-
ing non-smoking areas in public places and
hibits smoking at all MSMA House of Dele-
es meetings and scientific sessions held in con-
ction with these meetings. (1981)

Unpaid Accounts — Interest

s not in the best interest of the public or the
fession to charge interest on an unpaid bill or
e for professional services not paid within a
prescribed period of time nor is it proper to charge a patient a flat collection fee if it becomes necessary to refer the account to an agency for collection.

It is not improper, however, for a physician to add a service charge, equal to the actual cost of rebilling, on accounts not paid within a reasonable time. Patients must be notified in advance about the existence of this practice. (1975)

Utilization Review — Participation

The MSMA supports the right of individual physicians voluntarily to elect not to participate in governmental review programs which they believe conflict with the principles of good medical practice when they have no contractual or ethical obligation to such program. (1976)

Utilization Review — Reimbursement

In those hospitals which conduct utilization review of any inpatient care, compensation of physicians for such review is a legitimate expense. The cost of such review should be included in hospital rates and reimbursable costs regardless of the source of payment. (1976)

If you have questions on these or other policy matters, please contact the Missouri State Medical Association, Box 1028, Jefferson City, Mo. 65102. Tel. — (314) 636-5151.

For MSMA Impaired Physician Program Assistance,

Call 314-636-5744

24-Hour Telephone Answering Service. Calls Are Confidential.

Missouri Voluntary Health Agencies and Organizations

In some instances, patients of MSMA members are eligible to receive assistance from various Voluntary Health Organizations in the state.

Assistance may be in the form of free or subsidized special equipment, rehabilitation training, counseling, specialized care and information and many other areas.

In an effort to assist MSMA members in attaining assistance for their patients, the following lis f Voluntary Health Organizations has been compil l. In some cases, a statewide organization is listed. n instances in which an organization is limited t a certain portion of the state, several organizations r be listed under one heading.

This list will be expanded and updated annual

Arthritis

Arthritis Foundation, Eastern Missouri Chapter
317 N. 11th, Suite 1117, St. Louis 63101
(314) 421-3550

Arthritis Foundation, Greater Kansas City-Western Missouri Chapter
8900 State Line, Suite 404, Leawood, Kan. 66206
(913) 649-8820

1. Literature for arthritis patients.
2. Public and professional education programs.
3. Newsletter.
4. Patient Clubs.

Arthritis Institute
2727 Main, Kansas City 64108
(816) 221-5383

1. Literature for arthritis patients
2. Public and professional education programs.
3. Newsletter.
4. Support groups.
5. Diagnosis and treatment of rheumatic diseases.

Birth Defects

National Foundation March of Dimes
P.O. Box 1403, Columbia 65201
(314) 449-0573

1. Perinatal seminars for physicians and nurses held three times per month across the state.
2. Perinatal reprint series, articles related to the improvement of the outcome of pregnancy.
3. Limited patient aid support on chapter level.
4. Educational materials and audio-visuals for distribution through hospitals, clinics and offices to community and professionals.
5. Computer information service for providing physicians with diagnostic information.

Cancer

American Cancer Society, Missouri Division, Inc.
P.O. Box 1066, 3322 James Houchin Dr., Jefferson City 65102
(314) 893-4800

1. Trained volunteer visitation of mastectomies, ostomy patients and laryngectomies (w attending surgeon's permission).
2. Free loan of hospital beds, wheelchairs, c -modes for home use.
3. Non-sterile cancer dressings.
4. Limited transportation services to and fr n treatment centers.
5. Limited assistance in the purchase of osto supplies.
6. Limited payment for pain medication (narcot for cancer patients.
7. Educational materials and audiovisuals on can r prevention, diagnosis and treatment for pul c and health professionals.
8. Seminars for health professionals to update th r knowledge and role in cancer prevention, -agnosis and treatment.

Cerebral Palsy

United Cerebral Palsy Association of Missouri, In
P.O. Box 611, Columbia 65201
(314) 449-2934

Extends services to disabled persons through affiliates:

1. Developmental training.
2. Diagnosis and evaluation at 10 cerebral pa centers.
3. Family and interpersonal counseling.
4. Preschool education.
5. Communication skills.
6. Adult day care.
7. Recreation and social group skill.
8. Summer camping program.

Crippled Children

Easter Seal Society for Crippled Children and Adu of Missouri
8124 Delmar Blvd., St. Louis 63130
(314) 726-0465

1. Coordinates provision of services to physica handicapped through Regional Offices.
2. Information and Counseling on employment resources.
3. Variety of services including equipment and

pliances, preschool programs, camping and recreation, in some areas.
4. Financial assistance for purchase of equipment and therapy on casework basis.

stic Fibrosis

stic Fibrosis Foundation, Gateway Chapter
7730 Carondelet, St. Louis 63105

stic Fibrosis Foundation, Heart of America Chapter
7920 Ward Parkway, Room 206, Kansas City 64114
816) 363-5636

1. Sweat testing and evaluation of Cystic Fibrosis Centers located in St. Louis, Kansas City and Columbia.
2. Assistance for drugs, laboratory work, x-rays, inhalation equipment and some hospitalization.

abetes

nerican Diabetes Association, Heart of America Affiliate
616 East 63rd, Kansas City 64110
(816) 361-3361

nerican Diabetes Association, Missouri Regional Affiliate
Box 11, Columbia 65201
(314) 443-8611
nerican Diabetes Association, Greater St. Louis Affiliate
1780 S. Brentwood Blvd., St. Louis 63144
(314) 968-3196

1. Patient education classes.
2. Professional and allied health education.
3. Summer camp for diabetic children.
4. Speakers bureau.
5. Bi-monthly magazine.
6. Literature, cookbooks available.
7. Professional referrals.
8. Screening and detection.

ilepsy

ssouri Epilepsy Federation
2337 S. Kingshighway, St. Louis 63110
314) 771-1212

eater Kansas City Epilepsy League
4049 Pennsylvania, Suite 208, Kansas City 64111
816) 531-1247

1. Discount drug program makes anti-convulsants available at cost.
2. Consultation and training programs available on individualized basis which include medical, pharmacological and psycho-social information.
3. Counseling program including individual, family, vocational and referral to other resources.
4. Prepared written pamphlets and other materials for patients, children and family members.
5. Film library.
6. Professional education.

owth Disorders

man Growth Foundation, St. Louis Chapter
Box 9959, Kirkwood 63122
314) 429-6893

1. Counseling for families about growth disturbances.
2. Referral source for information regarding financial assistance and growth problems.
3. Assists National Pituitary Agency in collection of human pituitary glands.

Heart

American Heart Association, Missouri Affiliate, Inc.
P.O. Box Q, 105 E. Ash, Suite 2, Columbia 65205
(314) 442-3193

1. Sponsor for medical research.
2. Sponsor educational programs on cardiovascular disease for all professionals.
3. Sponsor educational programs for public.
4. Assist in development of community service programs.
5. Referral for financial assistance or special services.

Hemophilia

Bi-State Hemophilia Association
P.O. Box 22246, St. Louis 63116
(314) 771-6080

1. Free summer camp for hemophiliac children.
2. Purchase of medical supplies.
3. New implementation of drop shipment of Factor 8 and Factor 9 for those on the state home care program.
4. Sponsor hemophilia clinic at Cardinal Glennon Hospital.

Kidney

Kidney Foundation of Greater Kansas and Western Missouri
3600 Broadway, Suite 25, Kansas City, Mo. 64111
(816) 531-3760

Kidney Foundation of Eastern Missouri and Metro East
8135 Forsyth Blvd., St. Louis 63105
(314) 863-5858

1. Public and professional education.
2. Support research grants.
3. Supply literature for kidney patients.
4. Patient-services.
5. Drug bank. (Discounts for patient medications)
6. Source of referral for patients and families.
7. Endorse the "Gift of Life" Organ Donor Program.

Lung

American Lung Association of Eastern Missouri
411 North 7th, St. Louis 63101
(314) 241-1554

American Lung Association of Western Missouri
2007 Broadway, Kansas City 64108
(816) 842-5242

1. Health education materials and services aimed at prevention of lung disease.
2. Publications on treatment of respiratory diseases.

3. Assistance to indigent patients for payment for diagnostic x-rays.
4. Transportation to chest clinic or hospital paid for qualified persons.

MULTIPLE SCLEROSIS

Multiple Sclerosis Society, Greater Kansas City Area Chapter
6501 Johnson Dr., Shawnee Mission, Kan. 66202
(913) 432-3926

Mid-Missouri Chapter
National Multiple Sclerosis Society
814 E. Broadway, P.O. Box 1071, Columbia 65201
(314) 875-6767

1. Weekly MS clinic at Kansas University Medical Center.
2. Patient equipment pool (purchase and loan).
3. Counseling.
4. Home care course for family education.
5. Sexual counseling.
6. Referral to community resources.

MUSCULAR DYSTROPHY

Muscular Dystrophy Association, Inc., Greater Ozarks Chapter
1087 E. Commercial, Springfield 65803
(417) 866-5117

Muscular Dystrophy Association, Inc., Missouri Valley Chapter
3435 Broadway, Suite L-9, Kansas City 64111
(816) 931-7750

Muscular Dystrophy Association
Central Missouri Chapter
914 Tandy, Suite 2, Columbia, Missouri 65201
(314) 443-6013

Muscular Dystrophy Association, Inc.
309 E. 7th St., Joplin 64801
(417) 781-7571

Muscular Dystrophy Association, Inc., Mississippi Valley Chapter
1023 S. Big Bend Blvd., St. Louis 63117
(314) 644-2828

1. Free diagnostic testing for 40 neuromuscular disorders.
2. Payment for orthopedic appliances.
3. Payment for limited amount of physical and occupational therapy.
4. Payment for influenza inoculations.
5. Transportation assistance.
6. Free services supplied at outpatient clinics.
7. Genetic counseling.
8. Professional education.

MYASTHENIA GRAVIS

Myasthenia Gravis Foundation, Inc., Greater Kansas City Chapter
4949 Rockhill Rd., Kansas City 64110
(816) 276-8310

1. Outpatient clinic on referral from patient's phy cian for confirmation of diagnosis, consultatio patient maintenance.
2. Myasthenia gravis drug bank.
3. Professional and patient educational materia
4. Free physician manual and nursing manual.
5. Professional educational seminar: Film a speaker provided.

RED CROSS

American Red Cross, St. Louis Bi-State Chapter
4050 Lindell Blvd.
St. Louis 63108
(314) 658-2000

American Red Cross, Greater Kansas City Chapte
3521 Broadway
Kansas City 64111
(816) 756-2365

1. Offers a number of courses to lay people, incl ing "Preparation for Parenthood," "Multi Sclerosis Home Care Course," "First Aid," "C diopulmonary Resuscitation" and "Health in t Home."
2. Vital Signs Module I and II provide a means teaching lay persons to measure their o temperature, pulse, respiration rate and blo pressure.
3. Provides counseling and assistance to milit families and veterans.

RETARDED CITIZENS

Missouri Association for Retarded Citizens
230 W. Dunklin, Jefferson City 65101
(314) 634-2220

1. Clearinghouse for information on mental tardation.
2. Referral services.
3. Professional and public information and c sultation available.
4. Day care centers, recreational programs and p ent counseling.

SUDDEN INFANT DEATH SYNDROME

St. Louis Regional Maternal and Child Health Cou cil, Inc.
5600 Oakland Ave., Suite G-350A, St. Louis 631
(314) 644-4100

1. Provides and coordinates free support servic including information and counseling, to famil experiencing the death of an infant due to SID
2. Distributes SIDS educational materials.
3. Provides education and training to health prof sionals and first responders to the death of infant (police, firemen, ambulance paramedi etc.).
4. Public information and community educatio
5. Referrals to community resources.
6. Parent/peer counseling.
7. Supervises development of statewide supp services for SIDS families.

Missouri Medicine

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MISSOURI STATE MEDICAL ASSOCIATION

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NEWS ROUND - UP

September, 1981

Reduction reported in immunizable disease cases

Barring a major disease outbreak later this year, Missouri will achieve the lowest number of cases of immunizable diseases in its history. Statewide cooperation between physicians and school officials has resulted in a sizable reduction in the number of recorded cases of measles, rubella, mumps, pertussis and tetanus in 1980-1981.

In Missouri, it is unlawful for any student to attend school for longer than one month unless he has been adequately immunized or exempted against poliomyletis, measles, rubella and diptheria.

To insure that the proper immunization series is completed, a good patient recall system is needed. A good patient recall system should review immunization records, identify patients in need of care and recall them when necessary. A recall system will reassure your patients that you are concerned about their progress and enhance your physician/patient relationship, in addition to stabilizing your patient population.

For further information on establishing a patient recall system, contact the Bureau of Immunizable Disease, Missouri Division of Health, P.O. Box 570, Jefferson City, MO 65102.

The immunization requirements for Missouri were modified last year by the Division of Health. The current immunization schedule is printed below.

MSMA prepares non-member mailing

The MSMA recently prepared a non-member solicitation for all physicians in Missouri who are not members of their local medical society, the MSMA and the AMA.

Those physicians will receive an informational packet containing a letter of invitation from President Eugene T. Hansbrough, M.D., an information sheet "What's in the MSMA for Me?," an AMA brochure, a membership application and a return envelope.

These packets were sent in bulk to the local medical societies; the societies then added any material they wished and mailed the packets to the physicians.

The MSMA hopes that this project will attract more members and provide new support for the local medical societies, the MSMA and the AMA.

In response to a recent MMPAC solicitation, 98 physicians have become new members. Dr. Burnell Landers, Kansas City, joined as a sustaining member and 97 physicians joined as MMPAC members.

A recent mailing to MSMA members who were not also members of the AMA has resulted in 25 new AMA members, 9 resident members and 5 student members.

MISSOURI IMMUNIZATION SCHEDULE

(Recommended by the American Academy of Pediatrics and the Missouri Division of Health)

SCHEDULE ONE

Recommended schedule for immunization of normal infants and children starting at 2 months of age

AGE	
2 mos.	— DTP*, Polio (TOPV)
4 mos.	— DTP, Polio (TOPV)
6 mos.	— DTP, **
15 mos.	— Measles, Rubella, Mumps
1½ yrs.	— DTP, Polio (TOPV)
4-6 yrs.	— DTP, Polio (TOPV)
14-16 yrs.	— Tetanus, Diphtheria (Repeat Every 10 yrs.)

SCHEDULE TWO

For children not immunized in infancy or who started late or had an interruption in Schedule One and are now 6 years old and under

1st Visit	— DTP, Polio (TOPV)
Interval After 1st Visit	
1 mo.	— Measles, Rubella, Mumps (must be 15 mos. of age)
2 mos.	— DTP, Polio (TOPV)
4 mos.	— DTP, **
10-16 mos.	— DTP, Polio (TOPV)
Age 14-16 yrs.	— Tetanus, Diphtheria (Repeat Every 10 yrs.)

SCHEDULE THREE

For children who were not immunized in infancy, who started late, had an interruption in Schedule One or were not immunized until age 7 and are now 7 years of age and older

1st Visit	— Td^x, Polio (TOPV)
Interval After 1st Visit	
1 mo.	— Measles, Rubella, Mumps
2 mos.	— Td, Polio (TOPV)
8-14 mos.	— Td, Polio (TOPV)
Age 14-16 yrs.	— Td (Repeat Every 10 yrs.)

x — Tetanus and diphtheria toxoids (adult type)

*DTP — Indicates diphtheria and tetanus toxoids combined with pertussis vaccine. (TOPV) — Trivalent Oral Polio Vaccine

** — A third dose of polio is recommended where polio is endemic. Otherwise this dose is optional. (Polio is no longer endemic in the United States.)

NOTE: If a child fails to return at an appointed time, the interruption of the recommended schedule, with a delay between doses, does not interfere with the final immunity achieved. It is not necessary to start the series over again REGARDLESS OF THE LENGTH OF TIME ELAPSED. It is only necessary to give the additional doses required to complete the schedule the child is on by age.

Communications workshop set for November 7

Final plans for the November MSMA communications training seminar are now being completed. The seminar will be held Saturday, November 7, 1981 at the Hilton Inn in Columbia from approximately 9:00 a.m. until 12:30 p.m. Following the seminar, there will be a meeting of the component society officers.

All interested members of the MSMA and MSMA Auxiliary are invited to attend this important seminar. The purpose is to encourage physician involvement in radio and television talk shows and the session will include actual interview experience.

The seminar is being conducted by representatives of the Burroughs-Wellcome Company. Burroughs-Wellcome is currently working with the MSMA to arrange radio and television interviews with physicians for several local medical societies.

If you are interested in attending the seminar or would like more information, please contact the MSMA Headquarters, P.O. Box 1028, Jefferson City, MO 65102.

Nominations sought for Community Service Award

Nominations are being sought for the MSMA Award for Citizenship and Community Service. The award will be presented to a Missouri physician who has made an outstanding contribution to the community for citizenship and public service above and beyond the call of duty as a practicing physician.

Nominations for the award should include a curriculum vitae and a one or two page statement of the nominee's qualifications for the award. All nominations must be received by *January 10, 1982* for consideration. Send nominations to MSMA Offices, P.O. Box 1028, Jefferson City, MO 65102. The award will be presented at the 1982 Annual Meeting of the MSMA House of Delegates.

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PR Update

In order to educate the public on health care matters affecting them today, the MSMA has become involved in the Burroughs-Wellcome physician interview program. The MSMA feels that physicians are the best equipped to educate the public about disease, prevention of disease, treatment of disease and the effect of government intervention on the availability of health care.

The Burroughs-Wellcome program provides our membership with the opportunity to educate the public in health care matters while obtaining favorable media exposure through their participation.

Through this program, Burroughs-Wellcome is working with local medical societies to establish a network of radio and television programs where physicians appear locally to represent their profession.

They are presently working with the MSMA to arrange interviews with physicians on television and radio stations in Boone, Cape Girardeau, Cole, Greene, Jasper and St. Louis counties.

After local society participation is agreed upon, members make themselves available for appearances and interviews on assigned topics. Although the Burroughs-Wellcome representative will contact the local media to set up programming, the local society is responsible for the scheduling of the physicians. A survey is usually distributed to determine which physicians are willing to appear and discuss each topic.

The radio interviews are usually conducted in the physician's office by the local Burroughs-Wellcome representative. Suggested questions for both radio and television are provided but are not mandatory. The Burroughs-Wellcome name is never mentioned on the air, instead credit is given to the local medical society.

If your local society is interested in participating in this program, please contact the MSMA Headquarters.

Hotlines for reporting child and elderly abuse

Twenty-four hour hotlines have been established for the reporting of both child and elderly abuse in Missouri.

Physicians are required by Missouri law to report any suspected case of child abuse or neglect. The child abuse hotline, staffed by the Division of Family Services, has been in use since passage of that law. Physicians wishing to use the toll free number to report a suspected case of child abuse should call 800-392-3738.

The elderly abuse hotline was established as a result of a protective services bill passed last year. The law enables the Division of Aging to intervene on behalf of elderly persons and states that all physicians should report any suspected case of elderly abuse or neglect to the Division of Aging. The toll free number for the elderly abuse hotline is 800-392-0210.

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with

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EQUAGESIC—Abbreviated Summary

> ***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and or other information, FDA has classified the indications as follows
>
> "Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
>
> Final classification of the less-than-effective indications requires further investigation
>
> The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs

Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION. An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnant during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or near maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm). These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants e g caffeine Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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WYGESIC—Abbreviated Summary

INDICATION For the relief of mild-to-moderate pain

CONTRAINDICATION Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers alcohol or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants including alcohol

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness, sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation abdominal pain skin rashes light-headedness, headache weakness, euphoria dysphoria and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers, sedative-hypnotics and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration, cyanosis) extreme somnolence progressing to stupor or coma pupillary constriction and circulatory collapse In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions, a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported and apnea, cardiac arrest and death have occurred.

Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia, and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours However early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice coagulation defects hypoglycemia encephalopathy coma and death may follow Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V ,simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine which may cause anorexia nausea, vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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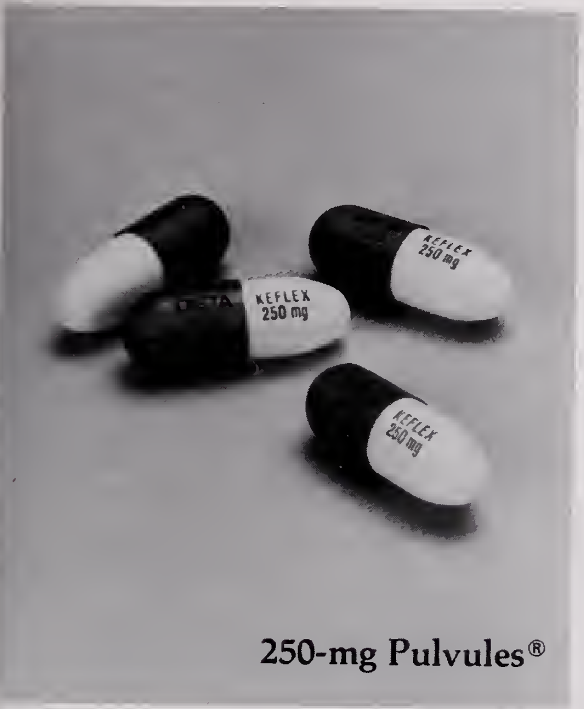

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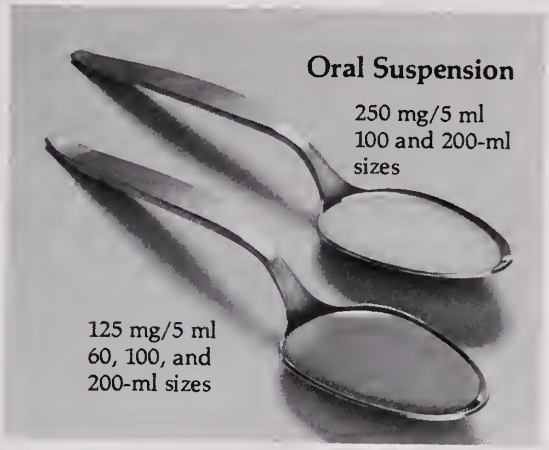

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Missouri State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript.

Manuscripts should be typewritten, double spaced, and the original with one carbon copy submitted. Retain another carbon copy for proofreading. Used manuscripts are not returned. School and hospital appointments of the author should accompany the manuscript. It is desirable that a synopsis-abstract of approximately 135 words accompany the manuscript.

References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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Feelings vs.

Some people feel that I am misused and overused and that I'm prescribed too often and for too many kinds of problems.

The FACT is that approximately eight million people, or about 5 percent of the U.S. adult population, will use me during the current year. By contrast, the national health examination survey (1971-1975) found that 25 percent of the U.S. adult population experiences moderate to severe psychological distress. Additionally, studies of patient attitudes revealed that most patients have realistic views regarding the limitations of tranquilizers and a strong conservatism about their use, as evidenced by a general tendency to *de*crease intake over time. Finally, a six-year, large-scale, carefully conducted national survey showed that the great majority of physicians appropriately prescribe tranquilizers.

Some people feel that patients being treated with anxiolytic drugs are "weak," can't tolerate the anxieties of normal daily living, and should be able to resolve their problems on their own without the help of medication.

The FACT is that while most people can withstand normal, everyday anxieties, some people experience excessive and persistent levels of anxiety due to personal or clinical problems. An extensive national survey concluded that Americans who do use tranquilizers have substantial

Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

Some people feel afraid of me because of the stories they've heard about my being harmful and having the potential to produce physical dependence.

The FACT is that there are thousands of references in the medical literature documenting my efficacy and safety. Extensive and painstakingly thorough studies of toxicological data conclude that I am one of the safest types of psychotropic drugs available. Moreover, I do not cause physical dependence if the recommended dosage and therapeutic regimen are followed under careful physician supervision. However, I can produce dependence if patients do not follow their physicians' directions and take me for prolonged periods, at dosages that exceed the therapeutic range. Patients for whom I have been prescribed should be cautious about their use of alcohol because an additive effect may result.

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Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic Symptomatic relief of acute agitation tremor delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome convulsive disorders (not for sole therapy)
The effectiveness of Valium (diazepam Roche) in long-term use that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient
Contraindicated: Known hypersensitivity to the drug Children under 6 months of age Acute narrow angle glaucoma may be used in patients with open angle glaucoma who are receiving appropriate therapy
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication abrupt withdrawal may be associated with temporary increase in frequency and or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation usually limited to extended use and excessive doses Infrequently milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration The clinical significance of this is unclear
Side Effects: Drowsiness, confusion diplopia hyootension changes in libido, nausea, fatigue depression dysarthria, jaundice, skin rash, ataxia, constipation headache incontinence changes in salivation, slurred speech tremor, vertigo, urinary retention, blurred vision Paradoxical reactions such as acute hyperexcited states anxiety hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances stimulation have been reported should these occur, discontinue drug Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy
Dosage: Individualize for maximum beneficial effect *Adults* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b i.d to q i d. alcoholism, 10 mg t i d or q.i.d in first 24 hours then 5 mg t i d or q i d as needed, adjunctively in skeletal muscle spasm 2 to 10 mg t i.d or q i.d , adjunctively in convulsive disorders, 2 to 10 mg b i d to q i d *Geriatric or debilitated patients* 2 to 2½ mg 1 or 2 times daily initially increasing as needed and tolerated (See Precautions) *Children* 1 to 2½ mg t i d or q i.d initially, increasing as needed and tolerated (not for use under 6 months)
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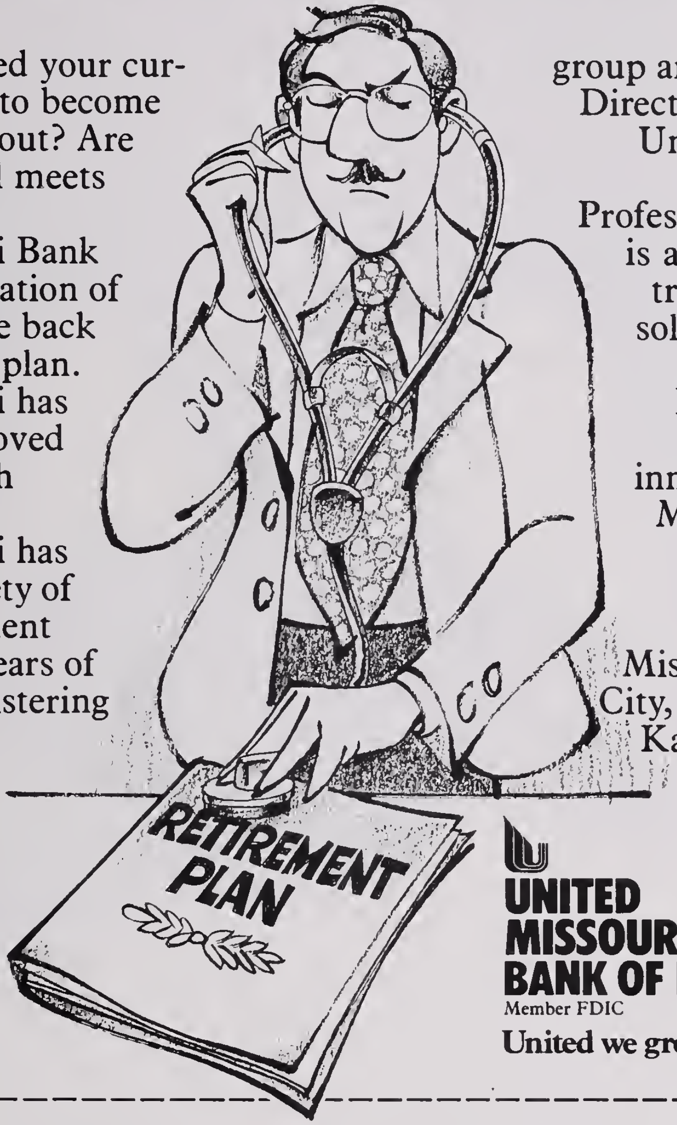

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"Is this America?"

Editor's Corner

Who Killed Tradition?

I spent a recent evening with a highly intelligent chap who voiced his concern about what he called "Adolescent America." This concern was not so much that America was not yet old enough to develop a distinctive culture, but rather that it refused to even make an effort.

He said our society seemed determined to cast aside any semblance of tradition and, instead, embraced the fad of the moment to a degree which much resembled the infatuation of a child with a new toy. The problem with this, on a national scale, is that it lends no sense of permanence: no base for the next step.

This made me think of the teaching we now give our young; in particular, the teaching of American History. I have seen several of those texts and I can tell you that very many of our public school students are learning little genuine American History. The reason is that they are not exposed to it. Go get those books yourself! Examine what your children are taught. Then, if you will, get a book on American History published in England. At that time, you will become properly informed of what American History is all about. But not your kids!

A few months ago, I went to what I thought was a venerable church in Washington, D. C. I relaxed to enjoy a service I expected to be rich in tradition and to reflect the history of that old edifice. What did I hear? First, there was a lay reader who couldn't read aloud and who had no appreciation of the language. Then there was a badly-played trombone solo. Then a sing-songy anthem, which properly belonged to a Salvation Army street band. The sermon was a casual discourse on local civic affairs, neither very perspective nor at all concerned with man's relationship with his creator. I came away thinking I might have taken a wrong turn and wound up in a civic club meeting, and a poor one at that. I have had that experience repeated often enough that I have about come to think that if religion is to survive in our country, its greatest obstacle might very well be the church.

From that viewpoint, I also watched on television a British ceremony of the sort all of you have seen. I am no particular Anglophile but there were the great cathedral, the rich vestments, the symbols and hoary tradition of office. I must admit my American upbringing caused me to wonder at the incongruity of all that in the world of today. Where was its worth? Then I realized that ancient kings and archbishops trod those same paths in those same clothes and for those same occasions. Simply knowing about them lent a sense of maturity and provided a groove for one's thinking about one's self.

America could use some of that. America is a wonderfully generous, open-hearted land but it is, indeed, "Adolescent America." On almost every level it resembles the girl growing up who, one day, puts on her Mother's dresses and high heels and the next day is out playing Cowboys and Indians.

My friend said that a historian of the 25th century would probably record today's latter half of the 20th century of America as "Cute."

Wilfred E. Wooldridge, M.D.
From "Conversations With Myself"

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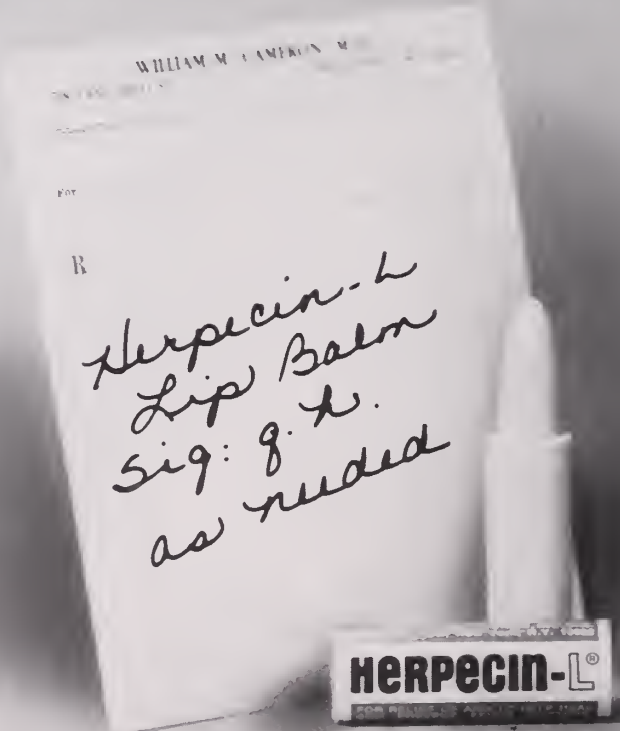

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MASOOD AHMAD, M.D., *Columbia*

Tc-99m Pyrophosphate Myocardial Imaging in Acute Myocardial Infarction

Value and Limitations

INCE THE ORIGINAL OBSERVATIONS of Parkey and onte regarding the uptake of Tc-99m pyrophos- hate (Tc-99m PYP) by the necrotic myocardium patients with acute myocardial infarction, Tc- 9m myocardial imaging has been widely applied the diagnosis of acute myocardial infarction.[1] he radioisotope labels the area of myocardial ecrosis that is then visualized as a "hot spot" in e scintigram.

A number of studies have now demonstrated e safety and sensitivity of Tc-99m PYP myocar- ial imaging in the identification of acute myocar- ial infarction in both experimental animals and umans.[1-15] The mechanism of TC-99m PYP yocardial uptake is presumed to be its binding the calcium and the denatured proteins re- ased in the area of the myocardial infarction.[5, 9] he optimal time for imaging patients with acute yocardial infarction is between 36 and 72 hours llowing the onset of the clinical event.[1] In the ajority of patients with acute myocardial infarc- on, scintigrams become negative in 7 to 10 days llowing the infarction.[1]

ROCEDURE

In order to obtain a Tc-99m PYP myocardial intigram, 5 mg of stannous pyrophosphate beled with 10 mCi to 15 mCi of Tc-99m is in- cted intravenously and imaging is performed 60 90 minutes later in anterior, lateral and left terior oblique projections. A general purpose andard gamma camera may be used for imaging. Computer processing of the scintigram is useful in sizing the infarct, but it is not necessary for routine diagnostic use.

IMAGE INTERPRETATION

Images are evaluated for the intensity, pattern and area of uptake. The intensity of uptake is graded from 0 to 4+ according to the method of Parkey *et al:* 4+ >sternal uptake, 3+ =sternal

Tc-99m pyrophosphate myocardial imaging is commonly used in the diagnosis of acute myocardial infarction. Original observations in its clinical applications were made at the University of Missouri Medical Sciences Center and Harry S. Truman VA Hospital. Extensive experience has been gained during the last few years regarding the advantages and limitations of this technique. This report presents a review of the current status of Tc-99m pyrophosphate myocardial imaging in light of this experience in regard to its value and limitations in the diagnosis of acute myocardial infarction.

Dr. Ahmad was Associate Professor of Medicine, Division of Cardiology, University of Missouri, at the time this paper was written. He is now Associate Professor of Medicine, Cardiology Division, University of Texas Medical Branch, Galveston.

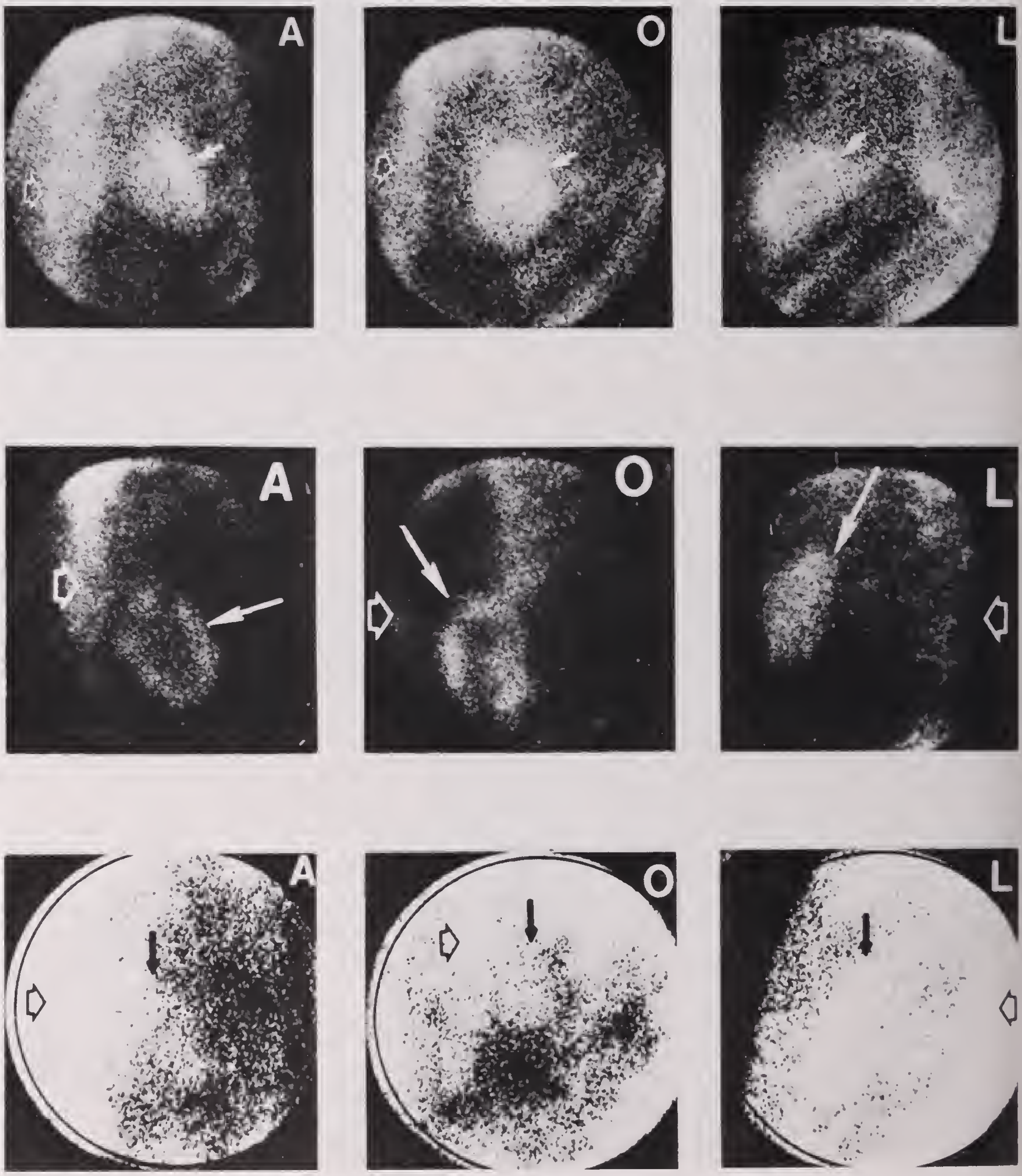

Fig. 1 *(Top panel)* focal pattern of Tc-99m PYP uptake. *(Center panel)* doughnut pattern of Tc-99m PYP uptake. *(Bottom panel)* Diffuse pattern of Tc-99m PYP uptake. Solid arrows point to the area of infarction and open arrows show sternum in anterior *(A)* and 45 degree left anterior oblique *(O)* and spine in lateral *(L)* projections. (Reproduced with permission from *The American Journal of Cardiology.* 44:13, 1979.)

ptake, 2 + <sternal uptake and 1 + = sternal upake. (0 and 1+ are considered negative).[1] The attern of uptake may be focal with discrete dges, diffuse with indefinite edges and "doughut pattern" showing a peripheral rim of uptake vith a central clear zone. The area of uptake can e measured either by computer techniques or y direct planimetry.

In patients with acute transmural myocardial nfarction, the radiotracer uptake usually has a cal pattern.[1, 2] In a group of 31 patients with cute transmural myocardial infarction, we found ositive Tc-99m PYP scintigrams in all, with a cal pattern of uptake in 29 and a diffuse pattern f uptake in two patients.[2] In 17 patients with cute subendocardial myocardial infarction, a difise pattern of uptake was present consistently. he doughnut pattern of Tc-99m PYP myocardial ptake seen in some patients with acute transmul myocardial infarction represents a massive inrction with uptake predominantly localized long the periphery of the infarct.[14] A number of udies have shown a good correlation between e scintigraphic, electrocardiographic and the istopathologic localization of the myocardial farction.[3-5]

ENSITIVITY AND SPECIFICITY

Tc-99m PYP myocardial imaging is highly nsitive in the diagnosis of myocardial farction.[1, 6, 7, 10] In experimental animals, it is own to detect necrosis involving 1% of the left ntricular mass, providing that the test is perrmed within 24 to 48 hours of the occlusion of e left coronary artery.[8] The sensitivity of this chnique using the serum cardiac enzyme and e electrocardiographic methods as the standard the diagnosis of myocardial infarction exceeds % with studies performed between one to ven days after myocardial infarction.[1-2, 7, 10] is sensitivity can be further improved by perrming serial imaging.

TABLE I
CAUSES OF Tc-99m PYP MYOCARDIAL UPTAKE

1. Acute myocardial infarction
2. Previous myocardial infarction
3. Ventricular Aneurysm
4. Unstable Angina Pectoris
5. Cardiomyopathy
6. Cardioversion
7. Myocarditis
8. Stable Angina Pectoris
9. Valvular Calcification

This test, however, is not specific for acute myocardial infarction. A number of false positive causes of Tc-99m PYP uptake have been reported (Tables 1 & 2). False positive scintigrams, usually showing a diffuse pattern, have been reported in patients with unstable angina following cardioversion, postcardiac surgery and in patients with intracardiac calcification, congestive cardiomyopathy, pericarditis, after mastectomy and in patients with renal failure.[2, 6, 11, 12]

The diffuse pattern of Tc-99m PYP myocardial uptake is least specific for the diagnosis of acute myocardial infarction. In patients without other evidence of acute myocardial infarction, the diffuse pattern of Tc-99m PYP should be interpreted with caution. At the University of Missouri Medical Center, we observed and reported early that a focal pattern of Tc-99m PYP uptake may occur in patients with left ventricular aneurysm in the absence of acute myocardial infarction.[13] The diagnostic specificity of this technique can be enhanced if the false positive causes of Tc-99m PYP uptake are taken into consideration.

CLINICAL APPLICATIONS

Although Tc-99m PYP myocardial imaging may not aid substantially in the diagnosis of the majority of cases of acute myocardial infarction, it is of great value when the electrocardiographic and/or serum cardiac enzyme changes are inconclusive. It is particularly helpful in patients with (1) nondiagnostic changes in the electrocardiogram, (2) previous myocardial infarction, (3) left bundle branch block, (4) true posterior myocardial infarction, (5) perioperative myocardial infarction, (6) myocardial contusion and (7) right ventricular infarction.

In addition to its diagnostic value, Tc-99m PYP imaging has a prognostic role in patients with acute myocardial infarction.[14-16] In a retrospective analysis of 30 patients who had undergone Tc-99m PYP myocardial imaging at the time of their acute myocardial infarction, we observed a high late complication rate in patients with the doughnut pattern of Tc-99m PYP uptake com-

TABLE 2
NONCARDIAC Tc-99m PYP UPTAKE
SIMULATING MYOCARDIAL INFARCTION

1. Necrotic Skin Lesions
2. Rib Fracture
3. Calcified Costal Cartilage
4. Breast Tumor
5. Metastatic Carcinoma

pared to patients with acute myocardial infarction and focal or diffuse pattern of Tc-99m PYP uptake.[14]

All patients with the doughnut pattern developed congestive cardiac failure and five of the six patients with this pattern of Tc-99m PYP uptake died within a year of their myocardial infarction. These observations stimulated our interest in examining the prognostic value of the pattern of Tc-99m PYP myocardial imaging. Our prospective studies so far continue to support our contention that doughnut pattern of Tc-99m uptake is associated with a high complication rate, especially congestive cardiac failure. In patients studied by gated cardiac blood pool imaging, low ejection fractions and large wall motion abnormalities have been found.

We feel that the doughnut pattern of Tc-99m PYP myocardial uptake predicts loss of a major portion of myocardium with resultant poor left ventricular function. This particular pattern of Tc-99m PYP uptake appears to be due to the labeling of the periphery of a large myocardial infarction. Due to the avascularity of the central necrotic area, no uptake occurs in the center of the infarction. Rude and his colleagues[15] were able to reproduce this pattern in experimental animals by high grade proximal ligation of the left anterior descending coronary artery.

In summary, Tc-99m PYP myocardial imaging is extremely helpful as a diagnostic tool in selected subsets of patients with acute myocardial infarction. The pattern of Tc-99m PYP myocardial uptake appears to be of both short term and long term prognostic value.

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The University of Texas Medical Branch
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The nation's physicians spent more time with their patients in 1980. Physicians had an average of 112 patient visits per week, compared to 122.7 visits in 1979 and 130.6 in 1978, but the physician's work week continued about the same — 44.5 hours of direct patient care in 1980, compared to 44.9 hours in 1979 and 45.4 hours in 1978. These figures are from the new 10th edition of *Profile of Medical Practice 1981*, published by the AMA. The book, which contains statistical information on work patterns, fees and expenses as well as essays on medical economics subjects, is available for $10 (plus $1.50 for handling) from AMA Order Department, OP-325, P.O. Box 821, Monroe, WI 53566.

JEFF SWETNAM *and* STEPHEN HAMBURGER, M.D, *Kansas City*

Insulin Therapy in Diabetic Ketoacidosis

Rationale and Methods of Low-Dose Insulin Administration

While diabetic ketoacidosis is a common medical emergency, the morbidity and mortality resulting from this illness has decreased markedly since the introduction of insulin. Past therapy has consisted of the high-dose insulin administered intermittently. In recent years, there has been increased usage of low-dose insulin therapy for diabetic ketoacidosis. This article describes the rationale and methods for low-dose insulin therapy.

Mr. Swetnam is a Medical Student and Dr. Hamburger is Associate Professor of Medicine, University of Missouri-Kansas City School of Medicine.

WHILE DIABETIC KETOACIDOSIS (DKA) is a common medical emergency, the morbidity and mor ality resulting from this illness has decreased markedly since the introduction of insulin. Nevertheless, the mortality rate remains at pproximately 5% to 10%.[1, 2] This indicates that here is still much to be learned about the treatment of DKA. It is a disorder that must be treated apidly and with a full understanding of pathogenesis and the principles of therapy.

PATHOGENESIS

DKA arises from the complex interaction of ormones in the body. All cases, however, have a relative or absolute deficiency of insulin usually aused by infections, other stresses or noncompliance with insulin regimens. Metabolic defects hat arise from the insulin deficiency include yperglycemia and hyperketonemia. Hyper lycemia occurs when the concentration of insulin insufficient to suppress glycogenolysis and glu oneogenesis. When overproduction of glucose coupled with underutilization by insulin ependent tissues such as adipose tissue and keletal muscle, plasma glucose concentrations become elevated.

Hyperketonemia is the other major metabolic bnormality of the ketoacidotic state.[3] The ketoacidosis is produced by a combination of verproduction and underutilization of the hydrogen ion-donating ketone bodies. They are aceoacetate and B-hydroxybutyrate. Acetone is also produced but is not a contributor to the acidotic ate.

Conventional therapy has consisted of high-dose insulin administered intermittently. This end began with the work of Root and Black in e 1940s.[4, 5] At the time of their review, the eory of "insulin resistance" had gained popularity and it was felt that high doses were required to vercome this abnormality.

In recent years, much work, both theoretical nd clinical, has shown that high-dose insulin therapy in DKA is not needed and might even be harmful.[6-8]

Numerous studies have indicated that low-dose insulin therapy adequately achieves the circulating levels needed to inhibit and reverse the pathophysiologic processes leading to DKA. Difficulties with high-dose regimens, as contrasted to low-dose insulin therapy, are hypokalemia, late hypoglycemia, hyperlactatemia, hypophosphatemia, hypomagnesemia and osmotic disequilibria.[9] All of these complications also may occur with low-dose insulin therapy, so careful clinical and biochemical monitoring is necessary.

ROUTES OF INSULIN ADMINISTRATION (TABLE 1)

Subcutaneous

Although low-dose subcutaneous insulin in DKA has not been as carefully studied as intravenous or intramuscular insulin, it has been utilized with good results. Fischer and associate have shown that an initial dose of 0.33 units per kilogram of regular insulin and 7 units per hour thereafter in the volume-repleted patient gives an equal clinical response as compared to the same dose given by intramuscular and intravenous

TABLE 1
METHODS FOR LOW DOSE INSULIN THERAPY IN DIABETIC KETOACIDOSIS

	Subcutaneous	*Intramuscular*	*Intravenous*
Dose	1. 0.33 units of regular insulin per kg as initial dose.[a,b] 2. 7 units of regular insulin per hour thereafter until plasma glucose reaches 250%.	1. 0.1 units of regular insulin per pound as initial dose.[a,b] 2. 0.05 units of regular insulin per pound hourly until plasma glucose reaches 250 mg%. 3. Priming dose optional.	1. 7 units of regular insulin per hour as continuous drip until plasma glucose reaches 250 mg%. 2. Priming dose optional.
Advantages[c]	1. Same as intramuscular.	1. Predictable decrease in plasma glucose level (60-100 mg%/hr). 2. Possibly less incidence of hypokalemia. 3. Possibly less incidence of hypoglycemia. 4. Simplifies insulin therapy.	1. Same as intramuscular.
Disadvantages	1. Heavily dependent on intravascular volume replacement. 2. Occassional nonresponder.	1. Dependent on intravascular volume replacement. 2. Occasional nonresponder.	1. Dependent on intravascular volume replacement. 2. Occasional nonresponder. 3. Infusion set must be frequently checked to ascertain that insulin delivery is correct.

a. If plasma glucose fails to decrease by 10% in the first hour, repeat initial dose each hour thereafter until a 10% decrease in plasma glucose is obtained.
b. If there is no response in the plasma glucose after three doses, switch to intravenous insulin and search for an infection.
c. In a patient with adequate replacement of intravascular volume and careful clinical and biochemical monitoring.

routes.[10] Criteria included time of glucose to decrease to 250 mg%, arterial pH to reach 7.30 and bicarbonate concentration to reach 15 mEq/liter.

The authors suggested that if the subcutaneous route is chose, an initial intravenous dose of 3 to 5 units of regular insulin should be given to promote a more rapid response of the plasma glucose and ketone level. A possible disadvantage of this route is the accumulation of insulin depots in the volume-depleted patient with resultant late hypoglycemia when intravascular volume is expanded. We feel that either intramuscular or intravenous low-dose insulin therapy is preferable to the subcutaneous route because of the greater experience with the former methods.

Intramuscular

The efficacy of intramuscular low-dose insulin administration for treatment of DKA has been well studied. Adequate repletion of intravascular volume is an absolute prerequisite for good results to be obtained with intramuscular insulin dosing. In most studies, initial doses range from approximately 10 to 20 units of regular insulin with an hourly dose thereafter of 5 to 10 units. We recommend an initial dose of 0.1 units of regular insulin per pound of body weight (no less than 10 units) and 0.05 units per pound (no less than 5 units) per hour until plasma glucose levels of approximately 250 mg% are obtained.

In an adequately volume-repleted patient, the plasma glucose should decrease by 10% or more in the first hour or two. If not, an infection, particularly bacterial, should be carefully sought. Infection also inhibits the metabolic response to other low-dose insulin regimens. The injection site of choice is the deltoid muscle. An intravenous priming dose has been recommended by Fischer's group.[10] They found that an intravenous priming dose of 0.05 units per pound of regular insulin produced a more rapid reduction of the plasma glucose and ketone levels. Other authorities do not recommend a priming dose. The intramuscular method is preferred when a low-dose intravenous route is not available.

Intravenous

Low-dose insulin infusions by this route have been used extensively in the past decade. As with the intramuscular route, a major advantage is the predictability with which plasma glucose levels can be brought to normal in the volume repleted patient. Another advantage unique to intravenous use is the moment-to-moment control that is available. Intravenous regular insulin has a half-life of approximately five minutes. Therefore, management may be simplified because altertions in dosage will produce a more rapid clinical response as compared to either intramuscular or subcutaneous administration. Thus, the problem of late hypoglycemia may be less common as long as the patient is closely monitored. In addition, hypokalemia may be a less frequent problem with intravenous insulin infusion.

With all methods of low-dose insulin therapy, the recovery of the arterial pH lags behind the reduction in plasma glucose. The question of insulin binding to the glass and/or plastic of the nfusion apparatus has been a concern to physicians. Several studies have shown that binding nhibitors such as albumin, gelatin solutions or the addition of the patient's blood to the bottle nhibits the insulin binding.[11] In addition, the "washout technique" may be used to overcome he insulin binding problem.[2] By running 100 ml of solution containing 5.0 U/dl of regular insulin hrough the infusion apparatus prior to patient hookup, all insulin binding sites will become saturated so that maximum delivery of insulin to the patient will be achieved. In fact, recent evidence hows that the excellent results of low-dose insulin therapy are not altered even without a bindng inhibitor or use of the "washout technique."[13]

Although the dosage of low-dose intravenous nsulin varies, the authors recommend a constant nfusion of 7 units of regular insulin per hour until he plasma glucose level reaches 250 mg/dl. If a esponse in a volume-repleted patient is not evident within one or two hours, the infusion rates should be doubled and the patient should be carefully evaluated for an infection.

Low-dose insulin therapy has been shown in many clinical trials to be a safe and effective method of treatment in DKA. The physician should be knowledgeable in both intramuscular and intravenous methods. Properly used, there is no significant clinical difference between the two routes. Subcutaneous low-dose insulin therapy is discouraged only because the other methods have been more fully evaluated. Low-dose insulin therapy of DKA is not a panacea. Only with total treatment including volume repletion, correction of electrolyte imbalance and reversal of the metabolic abnormality will the morbidity and mortality of DKA decrease.

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Percutaneous Transluminal Angioplasty in Renal Artery Stenosis

The value of percutaneous transluminal angioplasty (PTA) as a treatment of occlusive peripheral vascular disease has been demonstrated by Dotter *et al*,[1] Gruntzig *et al*[2] and others.[3] The benefits of the low morbidity, local anesthesia and shortened hospitalization resulting from PTA treatment have made it an attractive alternative to surgical intervention in selected cases.[1, 4, 5] Not only has it been successfully employed in the treatment of occlusive vascular disease of the extremities but also of coronary arteries and even of basilar arteries of patients unresponsive to medical and surgical treatment.[6]

Lately, PTA also is a means of relieving renal artery stenosis. Of 30 million hypertension patients in the United States, an estimated 5% have hypertension of the renal vascular origin.[7, 8] Renal vascular hypertension is one of the few correctable causes of elevated blood pressure. In selected patients, PTA may be an alternative to surgical intervention.[9] We have recently performed PTA in seven patients with renal vascular hypertension and report results of the following cases.

Percutaneous transluminal angioplasty (PTA) is a relatively low-risk, inexpensive and simple means of treating patients with occlusive peripheral vascular disease in selected cases. However, it requires close communication between the vascular surgeon and radiologist. The authors have recently performed PTA in seven patients with renal vascular hypertension and report the results.

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Case Reports

Patient #1 A 46-year-old black woman was initially diagnosed as having hypertension after a routin physical examination in 1965. Results of laborator evaluation were reported to be normal. Over a perio of ten years, her blood pressure was poorly controlle on a variety of medications including hydrochlorothiazide, 100 mg; alphamethyldopa, 2 gm; clonidine 0.9 mg; propranolol, 640 mg; hydralazine, 300 mg guanethidine, 37.5 mg; furosemide, 80 mg; and spironolactone, 200 mg daily. Abdominal aortography wa repeated in 1965 (Fig. 1A) and 1975, demonstratin evidence of initial and progressive medial fibrodysplasia of the right renal artery.

In 1975, renal vein renins (ng/ml/hr) demonstrate lateralization on the right (44.8 right vs 31.3 left kidney; 1.43:1 ratio). Repair of the right renal artery b aortorenal saphenous vein bypass (Fig. 1B) was unsuccessful in controlling blood pressure. The patient the received medical management with furosemide, 28 mg; propranolol, 240 mg; triamterene, 100 mg; an minoxidil, 40 mg.

Although blood pressure was controlled, hypertrichosis led to patient discontinuation of minoxidi after six months of the above therapy. Blood pressur continued to be poorly controlled (diastolic BP greate than 90 mm Hg) on conventional antihypertensiv therapy (metolazone, 10 mg; propranolol, 480 mg hydralazine, 300 mg; triamterene, 200 mg daily). Th patient was subsequently admitted to University o Missouri Medical Sciences Center (UMMC) on Nov 7, 1980 to undergo repeat diagnostic studies. Laboratory evaluation revealed the following values: serum urea nitrogen, 14 mg/dl; serum creatinine, 1.0 mg/dl normal serum electrolytes (Na 137, K 4.2, Cl 98, CO 30 mEq/L); normal Tc99m-DTPA renal perfusion scan; and I-131 hippuran renogram. An abdomina aortogram and bilateral renal arteriogram (Fig. 1C showed looping, kinking and marked stenosis of th right saphenous-renal artery graft with poststenoti dilatation and serrated appearance of the middle an distal portions of the right renal artery that was suggestive of stenosis at the anastomotic site. Angioplasty o the right renal artery graft (Fig. 1D) was performed Inpatient BP dropped initially from 168/86 to 130/7 mm Hg after reduced doses of 320 mg of propranolol and 200 mg of hydralazine. On the last outpatient clinic visit on December 3, blood pressure was 142/86 mm Hg.

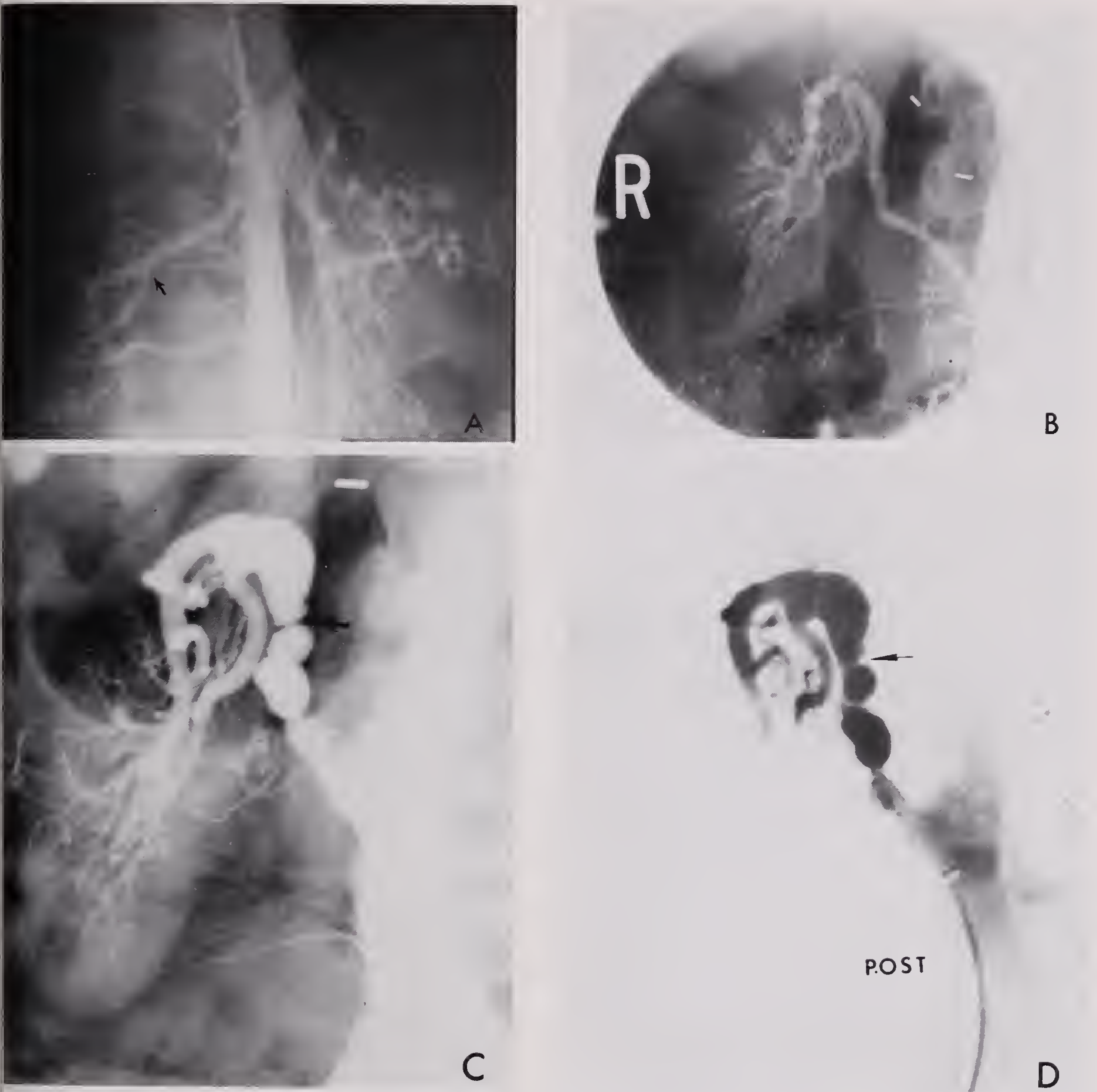
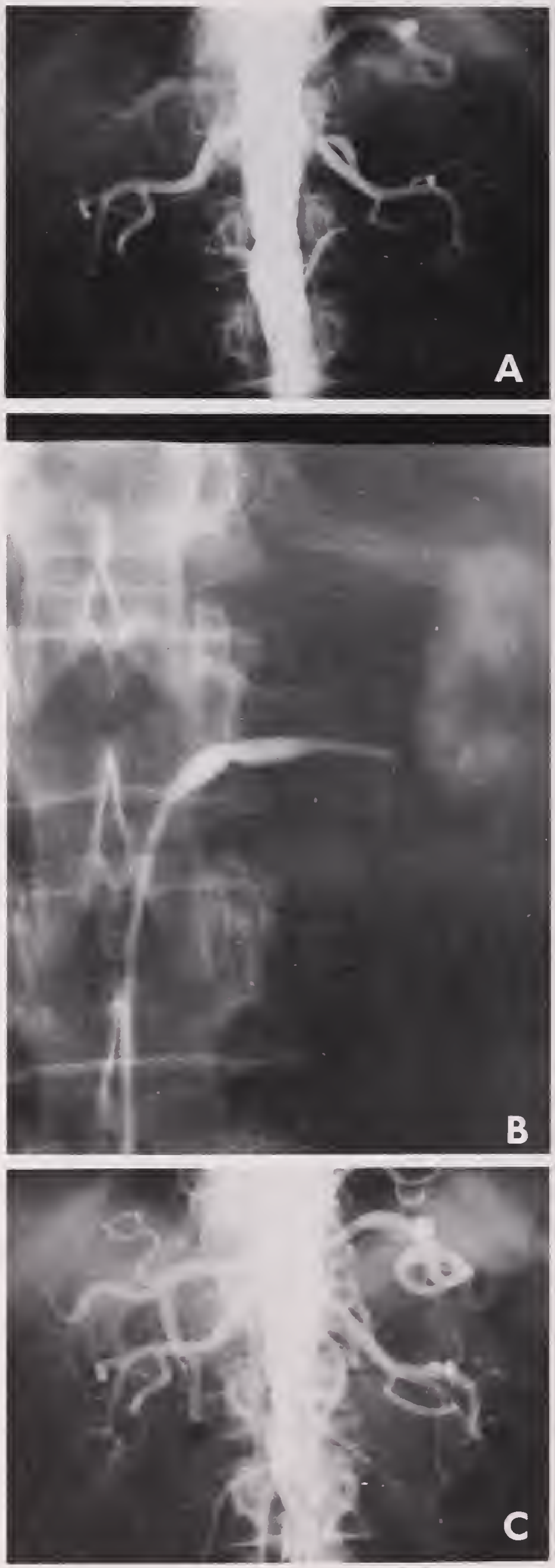


Fig. 1 Percutaneous transluminal angioplasty of stenotic right saphenous-renal artery graft. *(A)* Aortogram obtained on ov. 23, 1965 shows fibrodysplasia of the right renal artery. *(B)* Aortogram obtained on July 22, 1978 shows postoperative enosis at distal saphenous-renal artery anastomotic site. *(C)* Preangioplasty aortogram, obtained on Nov. 18, 1980 showing oping, kinking and marked stenosis of right saphenous-renal artery graft with poststenotic dilatation. (BP 168/86 mm Hg) *(D)* ollowing percutaneous transluminal angioplasty, the previously stenotic lesion is effectively dilated. Note marked improveent of flow and increased caliber of stenotic right saphenous-renal artery graft (BP 130/70 mm Hg).

Patient #2 The treatment of a 61-year-old white an with a 35-year history of hypertension was not egun until 1975. Blood pressure was poorly conolled on a variety of medications including phamethyldopa, 2.0 gm; propranolol, 160 mg; prazon, 6 mg; hydralazine, 100 mg; and hydrochlorhiazide, 50 mg daily.

On March 17, 1978, the patient was admitted to arry S. Truman Memorial Veterans Administration Hospital with an acute myocardial infarction and uncontrolled hypertension (BP 212/106 mm Hg). Laboratory evaluation revealed serum urea nitrogen value, 13 mg/dl; serum creatinine, 1.5 mg/dl; and normal serum electrolytes (Na 143, K 4.6, CL 103, CO^2 28 mEq/L).

His hospital course was uncomplicated and his blood pressure was controlled with furosemide, 40 mg; propranolol, 320 mg; and hydralazine, 100 mg daily. Because of poor outpatient blood pressure control,



however, the patient was readmitted on April 28 f additional evaluation. A Tc99m-DTPA scan demo strated delayed and decreased perfusion of the le kidney and an I-131 hippuran renogram demonstrate diminished function in the left kidney.

Although renovascular hypertension was consi ered as a component mechanism to this patient hypertension, medical management was again a tempted; the dosage of hydralazine was increased t 300 mg/day. However, blood pressure again becam uncontrolled and the patient was readmitted o November 5 for further diagnostic studies. An abdom inal aortogram (Fig. 2A) showed more than 80% steno sis of the proximal left main renal artery, mild atroph of the left kidney and diffuse arteriosclerotic vascula disease involving abdominal aorta and bilateral ilia arteries. Renal vein renins (ng/ml/hr) demonstrate lateralization on the left kidney (10.5 right, 27.8 le kidney; 1:2.64 ratio). Percutaneous translumina angioplasty (Fig. 2B & 2C) was performed on the le renal artery on November 21 with an initial drop i inpatient blood pressure from 178/90 to 140/80 m Hg. After drug therapy, diastolic blood pressure ros to 100 mg Hg, but it was controlled on a daily regime of metolazone, 5 mg; metoprolol, 100 mg; and prazo sin, 20 mg. A repeat renal perfusion scan demon strated normal symmetrical perfusion to both kidneys and a hippuran renogram demonstrated bilateral nor mal function. The discharge serum urea nitroge values was 26 mg/dl, and serum creatinine was 1. mg/dl. On a recent follow-up outpatient evaluation o Nov. 6, 1980, BP was 158/80, on the above medica tions.

Patient #3 A 68-year-old white man was initiall diagnosed as having hypertension on routine physica examination in July, 1979. Initial laboratory evaluatio revealed a serum urea nitrogen of 27 mg/dl and seru creatinine of 2.3 mg/dl. Urinalysis and serum electro lytes were normal. A renal scan (technetium 99 DTPA) showed uniform bilateral renal perfusion. Initial medical management included hydrochlorothiazide, 75 mg; metroprolol, 200 mg; hydralazine, 7 mg; and prazosin, 15 mg daily but failed to contro blood pressure.

The patient was referred to UMMC on Oct. 11, 197 with a blood pressure of 220/110 mm Hg. An abdominal aortogram (Fig. 3A) and left renal arteriogram showed arteriosclerotic changes of the abdominal aorta and marked stenosis of the left renal artery approximately 1.5 cm distal to its origin. Renal vein renins (ng/ml/hr) demonstrated lateralization on the right

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Fig. 2 Percutaneous transluminal angioplasty of left renal artery. *(A)* Aortogram shows almost 80% stenosis of the left renal artery 3 mm-4 mm distal to the orifice with moderate atherosclerotic disease of abdominal aorta (BP 178/90 mm Hg). *(B)* Inflated Gruntzig balloon at the level of the stenotic left renal artery. Dumbbell-shaped balloon indicates the stenotic site. *(C)* Post-transluminal angioplast aortogram shows successful dilatation of stenotic segment of left renal artery (BP 140/80 mm Hg).

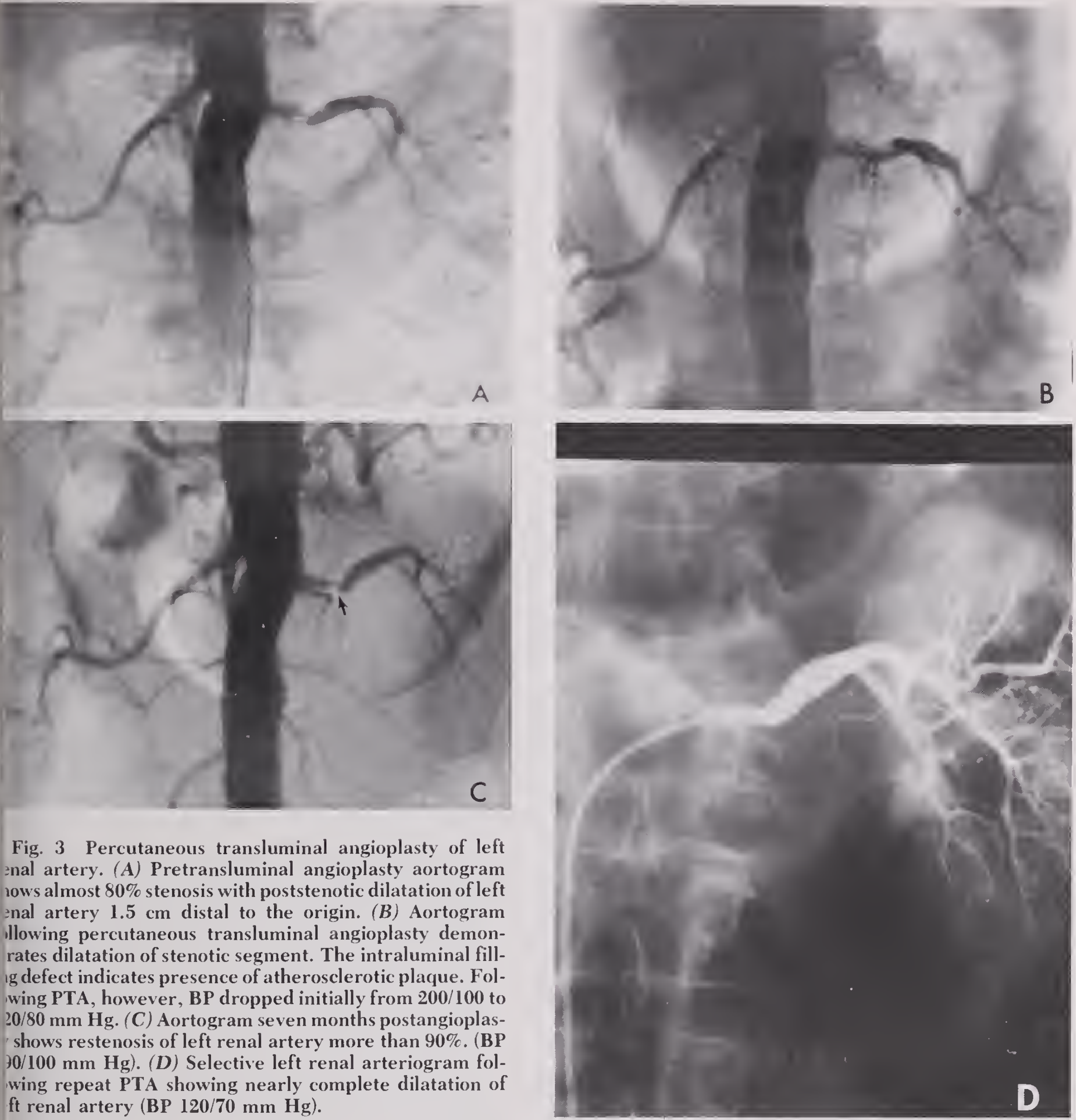

Fig. 3 **Percutaneous transluminal angioplasty of left nal artery. *(A)* Pretransluminal angioplasty aortogram ows almost 80% stenosis with poststenotic dilatation of left nal artery 1.5 cm distal to the origin. *(B)* Aortogram llowing percutaneous transluminal angioplasty demonrates dilatation of stenotic segment. The intraluminal fillg defect indicates presence of atherosclerotic plaque. Folwing PTA, however, BP dropped initially from 200/100 to 20/80 mm Hg. *(C)* Aortogram seven months postangioplas shows restenosis of left renal artery more than 90%. (BP 0/100 mm Hg). *(D)* Selective left renal arteriogram folwing repeat PTA showing nearly complete dilatation of ft renal artery (BP 120/70 mm Hg).**

de (8.7 right vs 5.2 left kidney; 1.67 : 1 ratio). Further edical attempts at treatment with furosemide, 90 g; propranolol, 320 mg; hydralazine, 300 mg and razosin, 6 mg were complicated by a febrile reaction hydralazine and unsuccessful.

The patient was subsequently readmitted to MMC on March 16, 1980 and percutaneous transminal angioplasty of the left renal artery was done. patient blood pressure dropped initially from 200/ 0 to 120/80 mm Hg, necessitating reduction of the tient's propranolol dose to 80 mg per day. Postangioasty (Fig. 3B) renal vein renins (ng/ml/hr) demonrated no gradient (11.8 right vs 13.9 left kidney). The patient had good control of his blood pressure on a regimen of metolazone, 10 mg; propranolol, 80 mg and triamterene, 100 mg daily (diastolic blood pressure approximately 90 mm Hg) until he experienced an abrupt elevation of his blood pressure on 10/1/80 (to 230/118).

The patient was admitted to UMMC on October 27 and underwent a repeat abdominal aortogram (demonstrating more than 90% recurrent occlusion of the left renal artery) (Fig. 3C) and repeat angioplasty (Fig. 3D). Inpatient blood pressure dropped from 190/100 to 120/70 mm Hg.

Patient #4 A 58-year-old white man was initially

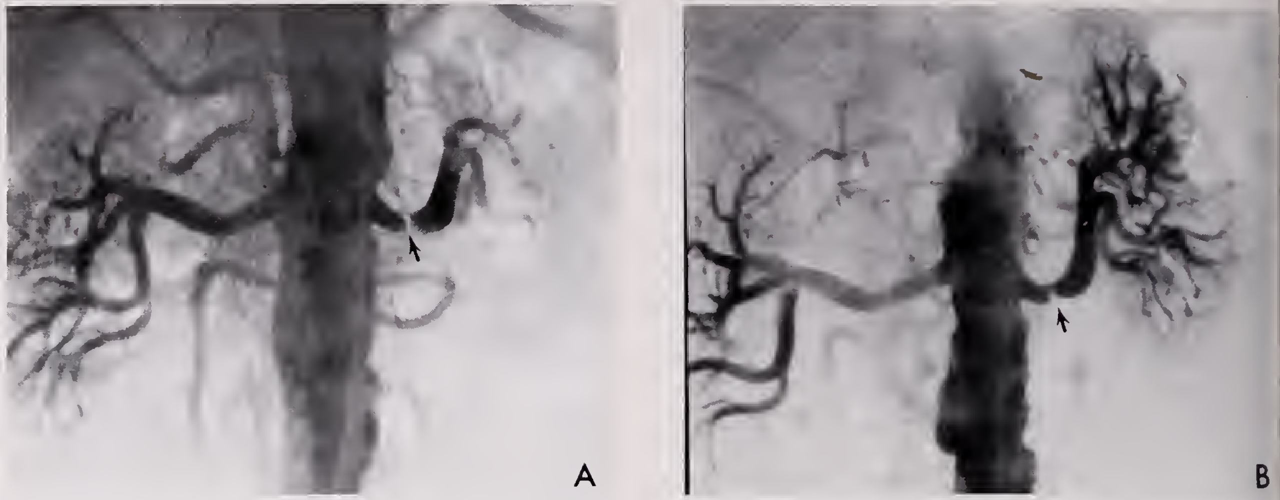

Fig. 4 Percutaneous transluminal angioplasty of left renal artery. *(A)* Aortogram before PTA shows nearly complete occlusion of left renal artery with poststenotic dilatation (BP 230/130 mm Hg). *(B)* Aortogram following PT demonstrates successful dilatation of left renal artery wi good peripheral perfusion (BP 140/80 mm Hg).

diagnosed as having hypertension on routine physical examination in 1978. Hydrochlorthiazide, 50 mg/day, was given with apparent good control.

He continued this medication until one year before hospital admission, when he began to have severe headaches and exertional angina pectoris.

Nine weeks prior to admission, the patient experienced persistent headache and occasional blurred vision. On Aug. 20, 1980, he was admitted to the hospital with intense headache, blurred vision, blood pressure of 230/130 mm Hg, and grade 3 Keith-Wagener hypertensive retinopathy. Laboratory evaluation showed a serum urea nitrogen value of 21 mg/dl; serum creatinine, 1.6 mg/dl; and normal serum electrolytes (Na 139, K 4.0, Cl 101, CO^2 29 mEq/L). Control of the patient's accelerated hypertension was achieved with furosemide, 160 mg; propranolol, 160 mg; and minoxidil, 30 mg daily. At that time, diagnostic studies included an intravenous pyelogram demonstrating decreased size and function of the left kidney, a Tc99m-DTPA renal scan demonstrating abnormal left renal perfusion and an I-131 hippuran renogram demonstrating abnormal left renal function. Subsequently, an abdominal aortogram (Fig. 4A) showed approximately 95% focal stenosis of the left renal artery and moderate atheromatous disease of the abdominal aorta.

Renal vein renins (ng/ml/hr) demonstrated lateralization on the left kidney (13.5 right, 20.6 left kidney; 1:1.53 ratio). A percutaneous transluminal angioplasty (Fig. 4B) was performed on the left renal artery on two occasions (September 19 and 26) with an initial drop in inpatient blood pressure from 170/90 to 150/80 mm Hg with a reduced dose of minoxidil (20 mg) and a final drop in inpatient blood pressure to 140/80 mm Hg with no antihypertensive drug therapy. On a recent outpatient clinic evaluation (December 11), the blood pressure was 136/90 mm Hg on a daily regimen of 100 mg of hydrochlorothiazide and 100 mg of metoprolol. Laboratory evaluation showed a serum urea nitrogen value of 22 mg/dl; serum creatinine, 1.6 mg/dl; an creatinine clearance, 87 ml/min/1.73 m^2.

METHODS

Utilizing the Seldinger technique, a femor artery is catheterized with a 6.5 French 65c RC1 catheter. After localization, a .035 inc straight, flexible guide wire is introduced past th stenotic segment. An exchange is then made wit a Gruntzig catheter over the guide wire. Durin insertion of the catheter at the puncture site, th balloon is carefully evacuated. The cathete selected (depending on the size of the ren artery) has a balloon segment 1.5 cm to 3 cm i length and 3 mm to 5 mm in diameter.

Arterial renal pressures are monitored both b fore and after dilatation. Under careful fluor scopic control, the balloon is manually inflate with contrast material once or twice for duration of up to 20 seconds. After dilatation, 5,000 units heparin are administered intra-arterially to th renal artery and a post-procedure arteriogram obtained. Anticoagulation is maintained afte wards.

DISCUSSION

In our series of seven patients (Table 1) wh underwent nine procedures, one patient wa cured and the status of five others improve There was one failure with no fatality. The ter "cure" is applied to those who have a postproc dure blood pressure with diastolic less than o equal to 90 mm Hg maintained without the aid antihypertensive medication.

A patient is termed as "improved" if he ha

TABLE 1

atient	*Sex*	*Age*	*Renin Ratio*	*BP Before PTA*	*BP After PTA*	*BP At Follow-Up*	*Antihypertensive Before PTA*	*Medication (MG/Day) On Discharge*
#1	F	46	1.43 (R/L)	140-170/90-96	120-130/70-80	142/86 (2 wks)	Hydrochloro-thiazide 300 Metolazone 10 Triamterene 300	Propranolol 320 Metolazone 10 Triamterene 300
#2	M	61	2.64 (L/R)	180-230/98-130	140-160/80-90	158/80 (50 wks)	Furosemide 20 Hydrochloro-thiazine 100 Propranolol 160	Metolazone 5 Metoprolol 100 Prazosin 20
#3A	M	67	1.67 (R/L)	180-200/90-110	120/70-80	230/118 (26 wks)	Furosemide 80 Propranolol 320 Prazosin 15	Propranolol 80 Metolazone 10 Triamterene 100
#3B				190/100	120/70		Propranolol 240 Metolazone 10 Triamterene 100	None
#4A	M	58	1.53 (L/R)	180-230/100-130	150/80		Minoxidil 30 Propranolol 160	
#4B					140/80	136/90 (11 wks)		Hydrochloro-thiazide 100 Propranolol 160
#5	M	61	1.59 (L/R)	130-200/60-105	130/60-65	220/110 (9 wks)	Hydrochloro-thiazide 200 Propranolol 160	None
#6	M	56	2.27 (R/L)	160/95	115/80	160-170/92 (34 wks)	Propranolol 400 Hydrochloro-thiazide 100 Prazosin 6	None

noderate to marked decrease in blood pressure vhether or not any antihypertensive medications iave been discontinued. One patient with severe theromatous disease and uncontrollable hyperension underwent an unsuccessful PTA. Because f subsequent thrombosis of the left renal artery, left nephrectomy was performed. However, he ontinues to be hypertensive.

Patient #3 had a favorable immediate post-'TA result with blood pressure maintained in the ormal range without the aid of any hypertensive iedications. On follow-up 26 weeks later, owever, his blood pressure rose to 230/118 mm Ig indicating possible restenosis. A repeat renal rteriogram (Fig. 3C) revealed a more than 90% estenosis of the left renal artery. After a second 'TA (Fig. 3D), however, his blood pressure ropped to 120/70 mm Hg. Our immediate sucess rate (cured plus improved), therefore, is 6%.

Others with series of one to eight patients reorted PTA success rates ranging from 85.7% to 00%.[9-12] Kuhlmann *et al* report one failure among eight patients as a result of occlusion of the renal artery three months post PTA.[10] Among four patients undergoing PTA, Katzen reports a 100% success rate.[9] Three other sources each report a case of successful dilatation of stenosis secondary to fibromuscular hyperplasia.[11, 13, 14] Our one patient with fibrodysplasia had an initial drop in blood pressure from 168/86 to 130/70 mm Hg after PTA and also required less medication. On follow-up two weeks later, her blood pressure was 142/86 mm Hg.

Success rates for surgical correction for renal vascular hypertension varies depending on the series. Shapiro reports immediate results of 26 percent with marked improvement, 28% with equivocal improvement and 46% unimproved.[15] Surgical success rates in the study by Stanley *et al* varied with the degree of atheromatous disease of the patient. Patients with atheromatous disease had a cure rate of 32%, improvement rate of 56% and failure rate of 12% while those with peripheral disease had rates of 25%, 29% and 46%, respectively. Also of note, 95% of those with fibromuscular hyperplasia benefitted from surgical procedures.[16]

In the series by Foster *et al*, 90% of 122 patients were cured or improved and there were eight operative deaths. The cure rate for those with fibromuscular hyperplasia was higher than that for those with atheromatous disease or 72% and 53%, respectively.[7] Also, the study by McCombs *et al* revealed an overall cure rate of 45% for 38 patients with three late deaths out of 38 and a 12% graft complication rate. In their series, a 69% cure rate occurred if the history of hypertension was less than one year but only 27% if longer than three years.[8] In our study of seven patients, the one patient cured had a documented history of hypertension for less than one year. Of those improved, histories of recorded hypertension varied from two to 35 years.

Despite high success rates of surgical procedures for renal vascular hypertension, surgical morbidity and mortality is higher in certain instances. Mortality rates elevate from 5.6% to 22.4% in patients with coronary artery disease, to 10.2% in patients with bilateral renal disease, to 22.5% with renal impairment and to 25% in those who undergo simultaneous renal vascular and extrarenal surgery. Postoperative uremia is the most frequent cause of death, accounting for 35% of deaths and contributing to 21% of other fatalities.[17]

Especially in nonsurgical candidates, PTA provides an attractive alternative. However, it also is not without risk. Complications include rupture of the balloon[2] or artery, thrombosis, embolization, restenosis and aneurysm formation.[9, 11] One of our patients experienced decreased pulsation in the lower extremity on the side of the puncture. This, however, resolved spontaneously.

Advantages of PTA are that it is a relatively low-risk, inexpensive procedure causing little discomfort that requires only a short hospitalization of the patient.[9, 10, 18] In addition, PTA can be repeated if necessary and does not preclude future vascular surgical procedures.[12, 14] Even after the decision to perform PTA is made after consultation with the vascular surgeons, communication must be maintained in case of an adverse result which might necessitate surgical intervention.

In summary, PTA is a relatively low-risk, inexpensive and simple means of treating renal vascular hypertension in selected cases. However, it requires close communication between the radiologist and the vascular surgeon.

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The deterioration of every government begins with the decay of the principles on which it was founded. — DE MONTESQUIEU

RALPH B. PFEIFFER, JR., M.D., DAVID D. MILLER, M.D.,
SUSAN A. BLACKARD, R.N. *and* CHARLES K. WOLLARD, M.A., *Springfield*

The Community Hospital Vascular Laboratory

THE VASCULAR LABORATORY at St. John's Regional Health Center in Springfield (Mo.) was opened in December, 1978, after consultation with competent advisors. Information was gathered from published articles and from visits to three vascular laboratories. From that information, we proceeded to purchase a Parks doppler 906, a Narco carotid phonoangiogram, a Zira OPG (Oculoplethysmograph), 100/OAP (Ophthalmic artery pressure), a standard treadmill, Hokanson blood pressure cuffs with inflator, a Meda Sonics Photo plethysomograph and a Versatone 2-channel recorder. The total cost at that time was approximately $25,000. The two physician directors collected extensive literature on the function of a vascular laboratory. A registered nurse spent a short time in a vascular laboratory in St. Louis.

Prior to its opening, initial information was given to the medical staff by those who were to operate the noninvasive vascular laboratory. Initial tests were performed free of charge for several weeks so that everyone could become proficient with the equipment.

During the first 18 months of operation, we performed approximately 1,500 examinations. Eight hundred and fifty-nine were cerebral vascular, 434 were for peripheral vascular, 198 were venous and a few were miscellaneous tests. All of the examinations were performed by one or wo nurses and were read on an alternate basis by he physician co-directors.

RESULTS

Of the 859 patients who were evaluated by arotid phonoangiography, doppler periorbital blood flow, superorbital photoplethysmograph nd oculoplethysmography, 141 underwent 4-essel selective carotid angiography. Forty-nine f these patients had normal arteriograms and 92 were abnormal. Standard criteria were used for interpreting various segments of the tests by well-stablished guidelines in the literature.

We considered our laboratory to be accurate if detected an abnormality in either carotid rtery. The results, therefore, were based on accuracy by patient rather than by carotid artery. Our overall accuracy for cerebrovascular examinations was 85%, with a false negative rate of 10% and a false positive rate of 5%. The most sensitive and accurate test was the Zira OPG/OAP. The final interpretation was based on an overall assessment of all of the various sections of the test and proved to be better than relying on one individual part of the examination.

Angiograms were available for 79 of the 434 peripheral vascular patients. Our accuracy rate approached 100% in determining the presence or absence of significant arterial disease. It was difficult to differentiate between aortoiliac and proximal superficial femoral disease. Standard doppler segmental studies followed by treadmill exercise or postocclusive reactive hyperemia were used in all our arterial examinations. This examination is now an integral part of assessing peripheral vascular occlusive disease in the lower extremities for disability determinations.

There were only 198 doppler venous examinations done and 23 venograms with which to compare our results. Our accuracy rate was 90% in detecting venous thrombosis.

Digital arterial examinations before and after

Information about noninvasive diagnostic procedures has often been reported from academic medical centers. Very little, however, has originated from community hospitals outside such centers.

This report deals with the function of a vascular laboratory in a community hospital setting. The prompt acceptance of these newer diagnostic modalities shows that this information can be equally well applied when trained personnel and proper facilities are available. The structure of a teaching center is not required.

The authors are from St. John's Regional Health Center. However, Dr. Pfeiffer is now a Fellow in Vascular Surgery, Eastern Virginia Medical School, Norfolk, Va.

ice-water immersion for vasospastic diseases, penile blood pressure measurements for determining impotence and photoplethysmography determination of venous valvular incompetence were some of the other tests performed during the first 18 months. The assessment of healing of skin ulcers and the determination of amputation level were infrequently evaluated. Since only a few of these examinations were made and because of a lack of standard criteria with which to compare the test, meaningful results could not be obtained.

DISCUSSION

The rapid proliferation of vascular laboratories is exceeded only by the number of companies that manufacture the equipment for them. It is inevitable that the results obtained by the pioneers in this field will be difficult to reproduce in the private community hospital. Hopefully, the vascular laboratory equipment will continue its logarithmic advancements so that technician accuracy and physician experience will become less of a factor in determining the overall accuracy rate of each individual laboratory.

We have demonstrated that with currently available equipment in a large community hospital, comparable accuracy rates can be obtained from physicians and personnel who have had no prior experience in this diagnostic technique. It is the feeling of one of the authors (RBP) that vascular laboratory evaluations for both cerebrovascular and peripheral vascular disease should be a standard preoperative and postoperative examination of the vascular patient. This is an inexpensive, safe, physiologic method of assessing vascular disease in patients.

Even though a good history and physical examination are essential for all patients, it seems apparent that their physiologic assessment is both a reasonable and logical second step to the workup of a vascular patient. Vascular obstructive disease produces physiologic alterations that, until recently, have been measured only in terms of anatomic abnormalities, i.e., arteriography. It seems apparent that in the future, vascular surgery may be performed more on a physiologic basis rather than an anatomic one. The pocket doppler should be as important to the vascular surgeon as the stethoscope is to the cardiologist.

The reliability of the vascular laboratory is based solely on angiographic studies that, themselves, are frequently inaccurate in anatomically assessing a hemodynamically significant arterial stenosis. Real time ultrasonography, spectroanalysis of wave forms, bruit evaluation and other newer techniques may replace most of the current vascular laboratory equipment and techniques. As long as they are compared to angiographic results, however, the "accuracy rate" will probably never be higher than 90%.

SUMMARY

A brief description of the establishment and interpretative results of a noninvasive vascular laboratory is presented with comments on the general usefulness of this laboratory in a community private practice hospital setting.

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The revised version of the AMA *Manual on Alcoholism* gives a current, authoritative overview of the major considerations involved in helping patients with alcohol problems. This edition incorporates a major portion of a previous AMA publication — *Medical Complications of Alcohol Abuse*. Cost of the *Manual* (OP-185) is $2.50 each for 1-10 copies; $2.25 each for 11-49; and $2 each for 50 or more. Write AMA Order Department, P.O. Box 821, Monroe, WI 53566. Also, complimentary copies of the revised version of the *Quick Guide to AMA Services* are available. The *Guide* is based on those requests most frequently received by AMA staff and is categorized by subject. Contact the Office of Medical Society Relations, AMA Headquarters, 535 N. Dearborn St., Chicago, IL 60610.

IBRAHIM S. HAWATMEH, M.D., JOHN G. GREGORY, M.D.
ERIK HOUTTUIN, M.D. *and* MICHAELA H. PURCELL, R.N., *St. Louis*

Management of Impotence by the Inflatable Penile Prosthesis

Six-Year Followup

Surgical treatment of impotence has been employed since 1902.[1] Since then, various types of prosthetics have been designed ranging from semi-rigid rods to the inflatable hydraulic system. The reliability of the inflatable prosthesis, which has become most popular in recent years, has been viewed with some skepticism, considering the mechanical problems which can be encountered.[2]

In spite of these complications, patient satisfaction and surgical success are reportedly high.[3] Over the past eight years, methods of diagnosing organic impotence have become more refined and surgical implantation techniques have been mproved. Our experience with 102 patients over a six-year period reflects these changes. Methods of patient selection and surgical results are preented.

Materials and Methods

The clinical management of 114 impotent paients was reviewed retrospectively. Their ages anged from 26 to 73 years. All patients were valuated according to the diagnostic protocol hown in Table 1. During hospitalization, a hysical examination was performed and the medical history was taken with emphasis on medications, particularly the tranquilizers and ntihypertensive agents that have been shown to adversely effect penile tumescence.[4] Past operaons which could interfere with erection were onsidered as were major metabolic illnesses such s chronic renal failure and diabetes mellitus.[5, 6]

A sexual history was obtained from all patients nd from their partners in order to identify the nset of impotence and to disclose any mental ness which might be responsible for erectile ilure. In some patients, standardized psychogical testing was performed. More helpful in is area of diagnosis has been the measurement nocturnal penile tumescence. It has been own that penile tumescence occurs normally in the physiologically intact man during periods of rapid eye movement (REM) sleep. This phenomenon is not interrupted in patients with psychogenic impotence. In our series, therefore, useful information regarding the cause of impotence was obtained from each patient by placing expandable strain gauges on the tip and base of the penis before the patient retired. In this way, the occurrence, duration and magnitude of nocturnal erections were recorded on chart paper while the patient was sleeping[7] (Fig. 1).

Once the diagnosis of psychogenic impotence had been excluded, a more detailed evaluation of neurovascular function was performed. Glucose tolerance tests were completed as were urodynamic studies. Gross evaluation of penile blood flow was obtained by particular attention to the magnitude of penile pulses and by the use of the Doppler ultrasound. More specific evaluation of blood flow was carried out in those patients who

TABLE 1
PROTOCOL FOR THE EVALUATION OF ERECTILE FAILURE

INITIAL WORK-UP (Organic vs Psychogenic)

1. History and physical examination.
2. Nocturnal penile tumescence (NPT).
3. Minnesota Multi-Phase VI Personality Inventory.
4. Rorschach Test.
5. Psychiatric consultation if needed.

SECOND STAGE WORK-UP
(Neurogenic vs Vasculogenic)

1. Glucose tolerance test.
2. Detailed neurologic examination.
3. Cystometrogram (CMG) and sphincter electromyography (EMG).
4. Palpation of penile pulse.
5. Penile blood pressure measurements (Doppler ultrasound).
6. More detailed evaluation of blood flow for revascularization candidates.
   a. Intraoperative electrical stimulation of nervi erigentes with infusion of the corpora cavernosa.
   b. Selective internal pudendal arteriograms.
   c. Corpora cavernosagram.

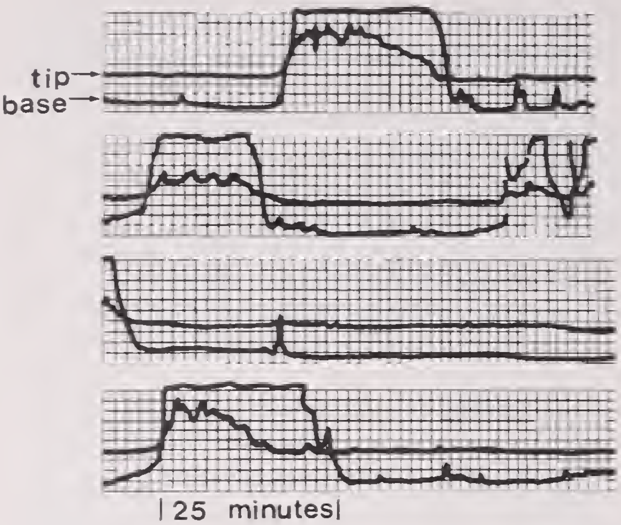

Fig. 1 Section of normal nocturnal tumescence tracing showing intermittent occurrence of erections. (Each division = .5 cm, vertical deflection of 1 cm = 1.3 cm change in penile diameter, horizontal movement of 20 cm = 1 hr sleep time.) Total time: 4 hours.

were to be considered for surgical penile revascularization as an alternative to the inflatable prosthesis.

After complete evaluation, this technique was performed in five patients, the results of which are presented elsewhere.[5] One hundred and two patients received the inflatable penile prosthesis and seven were referred for psychiatric counseling.

Results

TABLE 2
ETIOLOGY OF ERECTILE FAILURE

	Number of Patients
Diabetes mellitus	30
Idiopathic	19
Peyronie's disease	12
Neurologic disease	12
Cardiovascular disease	10
Renal failure	6
Carcinoma of the prostate (prostatectomy)	5
Trauma	5
Alcoholism	2
Priapism	1
Total	102

Listed in Table 2 are the physiologic disorders thought to be related to erectile failure in those patients who received the inflatable penile prosthesis. Diabetes mellitus was found most frequently. Many patients had deforming Peyronie's plaque, which could have been responsible for impotence. In a large number of patients, the cause of impotence was not known. However, lack of nocturnal tumescence indicated that the dysfunction was not of psychogenic origin.

Of the total 102 patients, 69 have received successfully functioning prostheses after initial implantation. Twenty-six have received one reoperation, six have required two reoperations and one has required three reoperations. Seventy-eight percent of these reoperations have been performed unquestionably for reasons of mechanical failure. Only eight reoperations have been performed for reasons of surgical error.

Prostheses have been permanently removed from only six patients — three because of infection, one because of pain and one because of mechanical failure. The sixth prosthesis was removed at another institution for unknown reasons. Overall surgical success is 94%. Seven patients have expressed varying degrees of dissatisfaction with the working prosthesis. Complaints include difficulty with ejaculation, insufficient penile length and loss of sensation in the glans penis. Patient satisfaction has totalled 93%.

Improvement in surgical success can be appreciated by comparing implants performed in earlier years with implants performed more recently (Fig. 2). Prior to 1978, 56% of those prostheses implanted required reoperation in the first two years. Of those patients who had surgery in 1978 and have been followed for two years, only 27% have required reoperation. In 1980, only 10% of patients implanted have required reoperation. In addition, the total number of reoperations has declined. Since 1979, only eight patients have required more than one operation to obtain a working result. Of these, only one has required

Over the past six years, 102 impotent men have been treated surgically at the St. Louis University School of Medicine by implantation of the Scott's inflatable penile prosthesis. Overall patient satisfaction has been high as has surgical success. As experience has been gained, results have notably improved.

Past obstacles to third-party payment have been reduced, making this procedure a feasible alternative even for the low-income man.

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two reoperations and no patient has required three reoperations. Patient satisfaction has remained high.

Discussion

In recent years, treatment of the sexually dysfunctional patient has received increasing medical attention. Psychotherapeutic modalities have recently been advanced and are appropriately applied in selected patients.[9-10] However, in those patients in whom organic cause can be identified or in whom psychotherapy has proven unsuccessful,[11] the inflatable penile prosthesis is an acceptable and successful treatment choice.

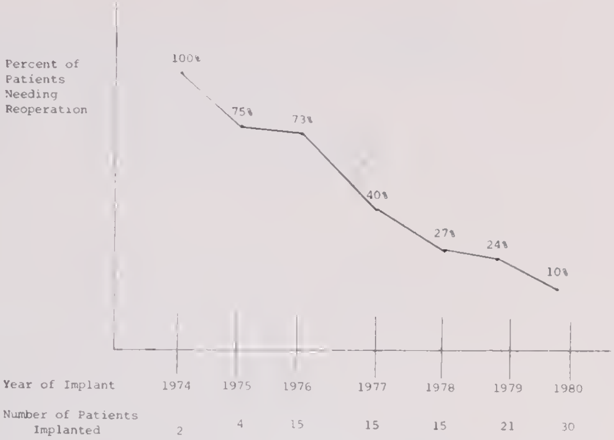

Fig. 2 Percent of patients requiring reoperation over six-year period.

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President's Message

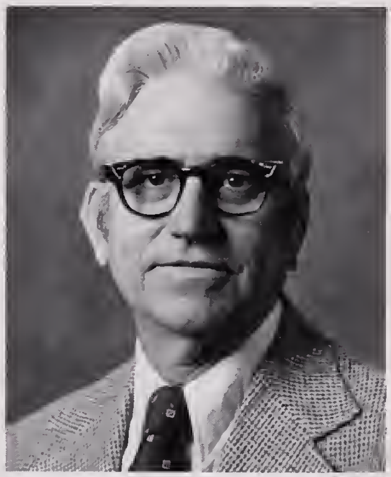
'Politics' and Physicians

Among the definitions of the word "politic" are the words artful, expedient and judicious. Synonyms include discreet, astute, wary. All are desirable words in the context of dealing with our citizens in relation to their government.

I see no reason to be critical of politics per se, even though its application leaves something to be desired at times. Every physician is a politician whether or not he realizes it. If he denies it, he merely means that "someone else" is doing the job for him. This would include his state medical association and its legislative staff on the state level and the AMA on the national level.

How can you as a physician be an effective politician without actively entering the arena of campaigning for votes? Be interested and then effective simply by informing your own state representative and senator of the needs of your profession and the good and/or bad points of medical-related bills that are placed before them for consideration.

Many legislators do not personally know a physician well enough to feel free to contact him for information. This is a disaster which YOU can correct by volunteering your personal interest in your representatives in state government and offering them information they want and need to make correct voting decisions.


Eugene T. Hansbrough, M.D.

Remember that local politicians are interested in the views of their constituents . . . and you are an important constituent who *votes* in the elections and can influence other voters.

1. Contact your legislators personally. Call them. Invite them to lunch or dinner or to your home . . . establish a sound, friendly relationship upon which they can rely. They will appreciate your effort.

2. Be informed about the content and status of every bill related to medical care. The MSMA staff or MSMA Councilors can furnish information you need.

3. Contribute to the campaigns of local and state candidates who are interested in good medical legislation. This expression of your concern will help to establish a better personal basis.

4. Inform your MSMA legislative staff about the activities of politicians in your area. Are they being detrimental to medicine? Are they working in the interest of good health care? The staff needs to know the views of every legislator in order to determine whom to support through MMPAC-AMPAC.

5. Most important, *join* MMPAC and AMPAC, your political action committees. Legislators are aware of their effectiveness and will always "lend an ear." This is all we can ask . . . to be heard. If legislation we support is not what the politician thinks it should be, he might vote against it . . . but he *will* listen to us.

For several years, officials of the MSMA have been sustaining members of PAC by contributing $100. This is their own money, but they recognize the importance of their contributions. Too many members do not give even a minimum amount to PAC.

Consider the importance of MMPAC-AMPAC and you will send your $100 today to the MSMA Headquarters, 113 Madison, Jefferson City 65102.

MSMA
Auxiliary

Mrs. Jerry Meyer
President

1981
Fall Conference

DATE: October 21-22

PLACE: Poplar Bluff, Holiday Inn

PURPOSE: Training event of the year for county presidents, county presidents-elect, state officers and other interested auxiliary members.

HOSTESSES: Butler-Ripley-Wayne-Carter Auxiliary. Mrs. Ricardo Ramirez chairman, Mrs. Tomas Espinosa co-chairman.

SEMINARS: Rev. Erwin Brese, Director, Lutheran Family and Children's Services of Missouri, Southeast Missouri Office, will speak on stress management. Mr. Greg Echele, Director, Community Services Development, will speak on child restraints.

WORKSHOPS: Legislation, AMA-ERF, MSMF, Membership
Legislation — Mrs. William Goodson, Jr.
AMA-ERF — Mrs. Clyde V. Martin
MSMF — Mrs. A. J. Campbell
Membership — Mrs. Donald Sanders

DISPLAYS: Each county auxiliary will display a poster of its members so that those who are unable to attend may be viewed by those present. In this way, we can better acquaint ourselves with other members of the Auxiliary even though they cannot attend the Fall Conference.

ENTERTAINMENT: Banquet will be held at Westwood Hills Country Club, program by The Puppet People, Inc. of Poplar Bluff.

SPECIAL GUEST: E. T. Hansbrough, M.D., President of The Missouri State Medical Association.

INVITED: Everyone interested in the Auxiliary.

medical melange

Notes of interest from Here . . . . and There

Dr. Phil Acuff, St. Joseph, has been elected president of the University of Missouri-Columbia School of Medicine alumni organization on the 25th anniversary of his graduation. He was the first student to receive a diploma from the School of Medicine in 1957 after the school had been expanded to a four-year program. The University, Medical School and his graduating class are celebrating the anniversary this fall. As president of the alumni association, Dr. Acuff will preside at the M.D. Day Festivities on October 23-24 in Columbia.

Dr. Thomas Sweeney, Springfield, recently portrayed a doctor of the Civil War period for a special program at Wilson's Creek National Battlefield. A adiologist, Dr. Sweeney displayed medical instruments and talked about nedical care during the war period. He appeared in the Ray House which erved as a Confederate field hospital after the Battle of Wilson's Creek.

Dr. Judson M. Hughs, director of employe health services at Methodist Medical Center in St. Joseph, will retire in his 50th year as a physician. He has been providing health services for the Medical Center since 1971. Dr. Hughes is a past-president of the St. Joseph Mental Health Association and is a member of the Buchanan Medical Society, MSMA, AMA and the American Occupational Medical Association. He also has been active on the Missouri Board of Mental Health and in the Optimist Club. His wife, Gwen, is diversional activities director at the Medical Center.

Dr. Arturo C. Montes, St. Louis, was installed as the 1981-1982 president of ie Missouri Academy of Family Physicians during the annual meeting at the odge of the Four Seasons at Lake Ozark in July.

Dr. R. S. Hollingsworth, Clinton, has been honored by members of the Clinton Rotary Club for 50 years of membership. He was presented a proclamation by the Missouri House of Representatives by **Rep. R. L. Dunning** of the 117th District in recognition of his many contributions to the Rotary and the Golden Valley Community.

Dr. James Dinkens, Cape Girardeau, was presented a certificate of appre-ation for his participation in a rural outreach conference held at Cardinal ennon Hospital for Children in St. Louis recently. He was one of the main eakers at the conference which was one of a series sponsored by the hospital a part of a participating physicians' program to promote better communica-n and understanding between rural physicians and the hospital's medical ff.

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8. How can I obtain more information on how to join this company?

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Contraindications: Individuals hypersensitive to it, or with the syndrome of nasal polyps, angioedema, and bronchospastic reactivity to aspirin, iodides, or other non-steroidal anti-inflammatory agents. Anaphylactoid reactions have occurred in such patients.

Warnings: Peptic ulceration and gastrointestinal bleeding, sometimes severe, have been reported. Ulceration, perforation, and bleeding may end fatally. An association has not been established. *Motrin* should be given under close supervision to patients with a history of upper gastrointestinal tract disease, only after consulting ADVERSE REACTIONS.

In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be tried. If *Motrin* must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

Chronic studies in rats and monkeys have shown mild renal toxicity characterized by papillary edema and necrosis. Renal papillary necrosis has rarely been shown in humans treated with *Motrin*.

Precautions: **Blurred and/or diminished vision**, scotomata, and/or changes in color vision have been reported. If these develop, discontinue *Motrin* and the patient should have an ophthalmologic examination, including central visual fields and color vision testing. **Fluid retention and edema** have been associated with *Motrin;* use with caution in patients with a history of cardiac decompensation or hypertension. *Motrin* is excreted mainly by the kidneys. In patients with renal impairment, reduced dosage may be necessary. Prospective studies of *Motrin* safety in patients with chronic renal failure have not been done. *Motrin* can inhibit **platelet aggregation** and prolong bleeding time. Use with caution in persons with intrinsic coagulation defects and those on anticoagulant therapy. Patients should report signs or symptoms of **gastrointestinal ulceration** or bleeding, blurred vision or other eye symptoms, skin rash, weight gain, or edema. To avoid exacerbation of disease or adrenal insufficiency, patients on prolonged **corticosteroid therapy** should have therapy tapered slowly when *Motrin* is added. The antipyretic, anti-inflammatory activity of *Motrin* may mask inflammation and fever.

Drug interactions. *Aspirin:* used concomitantly may decrease *Motrin* blood levels. *Coumarin:* bleeding has been reported in patients taking *Motrin* and coumarin.

Pregnancy and nursing mothers: *Motrin* should not be taken during pregnancy nor by nursing mothers.

Adverse Reactions

The most frequent type of adverse reaction occurring with *Motrin* is gastrointestinal, of which one or more occurred in 4% to 16% of the patients.

Incidence Greater Than 1% (but less than 3%)—Probable Causal Relationship

Gastrointestinal: Nausea,* epigastric pain,* heartburn,* diarrhea, abdominal distress, nausea and vomiting, indigestion, constipation, abdominal cramps or pain, fullness of GI tract (bloating and flatulence); **Central Nervous System:** Dizziness,* headache, nervousness; **Dermatologic:** Rash* (including maculopapular type), pruritus; **Special Senses:** Tinnitus; **Metabolic/Endocrine:** Decreased appetite; **Cardiovascular:** Edema, fluid retention (generally responds promptly to drug discontinuation; see PRECAUTIONS).

*Incidence Less Than 1%—Probable Causal Relationship***

Gastrointestinal: Gastric or duodenal ulcer with bleeding and/or perforation, gastrointestinal hemorrhage, melena, gastritis, hepatitis, jaundice, abnormal liver function tests; **Central Nervous System:** Depression, insomnia, confusion, emotional lability, somnolence, aseptic meningitis with fever and coma; **Dermatologic:** Vesiculobullous eruptions, urticaria, erythema multiforme, Stevens-Johnson syndrome, alopecia; **Special Senses:** Hearing loss, amblyopia (blurred and/or diminished vision, scotomata, and/or changes in color vision) (see PRECAUTIONS); **Hematologic:** Neutropenia, agranulocytosis, aplastic anemia, hemolytic anemia (sometimes Coombs' positive), thrombocytopenia with or without purpura, eosinophilia, decreases in hemoglobin and hematocrit; **Cardiovascular:** Congestive heart failure in patients with marginal cardiac function, elevated blood pressure, palpitations; **Allergic:** Syndrome of abdominal pain, fever, chills, nausea and vomiting, anaphylaxis, bronchospasm (see CONTRAINDICATIONS); **Renal:** Acute renal failure in patients with preexisting, significantly impaired renal function, decreased creatinine clearance, polyuria, azotemia, cystitis, hematuria; **Miscellaneous:** Dry eyes and mouth, gingival ulcer, rhinitis.

*Incidence Less Than 1%—Causal Relationship Unknown***

Gastrointestinal: Pancreatitis; **Central Nervous System:** Paresthesias, hallucinations, dream abnormalities, pseudotumor cerebri; **Dermatologic:** Toxic epidermal necrolysis, photoallergic skin reactions; **Special Senses:** Conjunctivitis, diplopia, optic neuritis; **Hematologic:** Bleeding episodes (e.g., epistaxis, menorrhagia); **Metabolic/Endocrine:** Gynecomastia, hypoglycemic reaction; **Cardiovascular:** Arrhythmia (sinus tachycardia, sinus bradycardia); **Allergic:** Serum sickness, lupus erythematosus syndrome, Henoch-Schonlein vasculitis; **Renal:** Renal papillary necrosis.

*Reactions occurring in 3% to 9% of patients treated with *Motrin*. (Those reactions occurring in less than 3% of the patients are unmarked.)

**Reactions are classified under *"Probable Causal Relationship" (PCR)* if there has been one positive rechallenge or if three or more cases occur which might be causally related. Reactions are classified under *"Causal Relationship Unknown"* if seven or more events have been reported but the criteria for PCR have not been met.

Overdosage: In cases of acute overdosage, the stomach should be emptied. The drug is acidic and excreted in the urine, so alkaline diuresis may be beneficial.

Dosage and Administration: Do not exceed 2400 mg per day. If gastrointestinal complaints occur, administer with meals or milk.

Rheumatoid arthritis and osteoarthritis, including flares of chronic disease: Suggested dosage is 300, 400, or 600 mg t.i.d. or q.i.d. Mild to moderate pain: 400 mg every 4 to 6 hours as necessary for relief of pain.

Caution: Federal law prohibits dispensing without prescription.

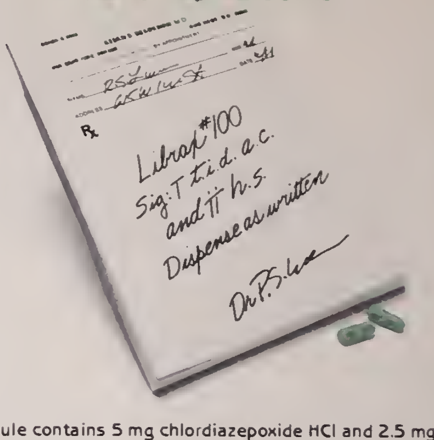
MED B-5-S

Upjohn THE UPJOHN COMPANY
Kalamazoo, Michigan 49001 USA

J-9042-4

July 1981

Specify Librax®


Rx
Librax #100
Sig: T t.i.d. a.c.
and ii h.s.
Dispense as written
Dr P.B.

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug

> *Usage in Pregnancy:* **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax. When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances. Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth blurring of vision, urinary hesitancy, constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

ROCHE® Roche Products Inc
Manati, Puerto Rico 00701

ROCHE ®

N THE G.I. DISORDERS

of Irritable Bowel Syndrome* and Peptic Ulcer*

Librax...the only G.I. medication that provides the action of Librium® (chlordiazepoxide HCl) to relieve the accompanying anxiety found in some patients, plus the action of Quarzan® (clidinium bromide) to reduce colonic spasm and gastric hypersecretion.

Specify
Adjunctive
Librax®

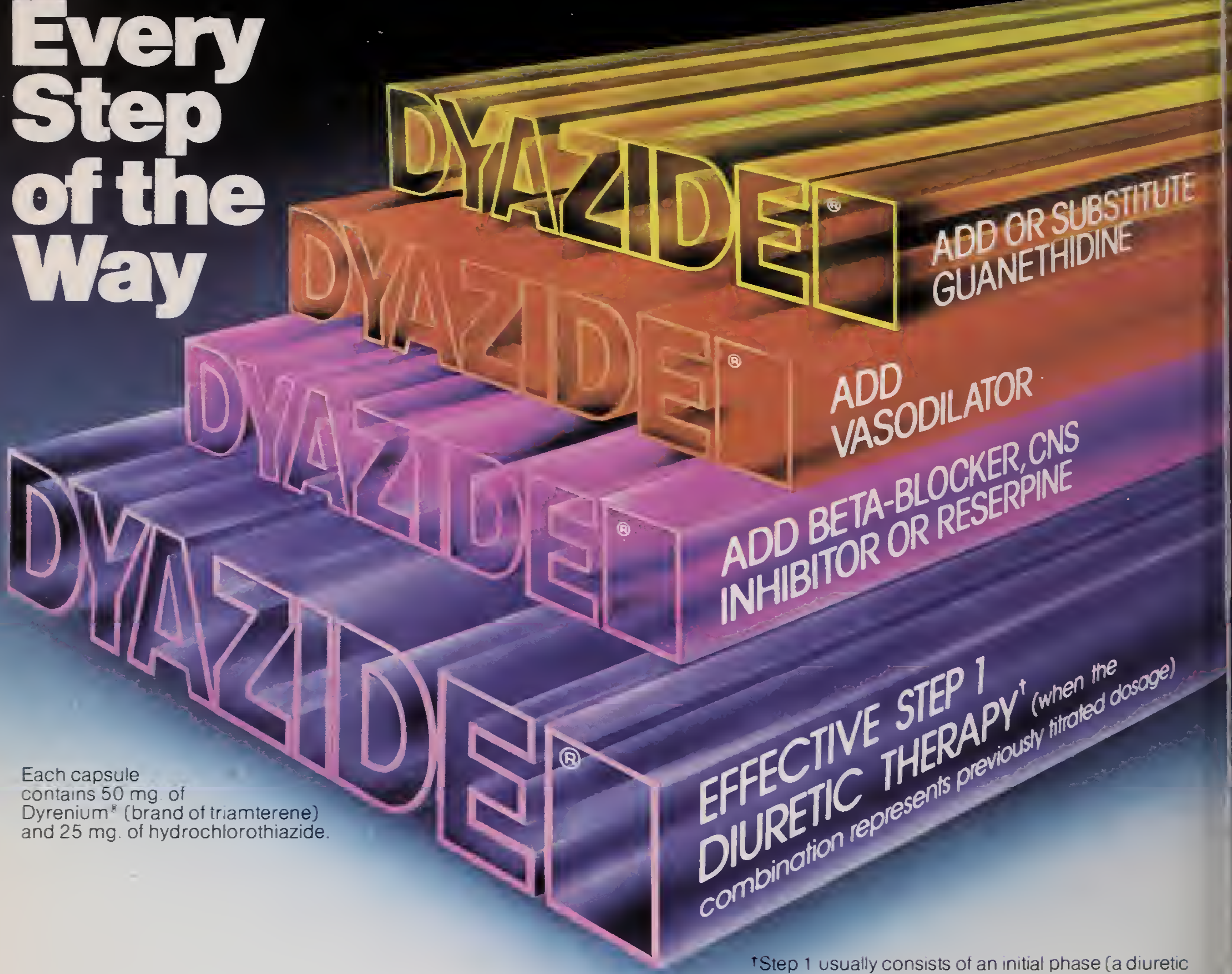
Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/ Antispasmodic

*Librax has been evaluated as possibly effective for these indications. Please see summary of prescribing information on facing page.

In Hypertension*...When You Need to Conserve K^+

Every Step of the Way


DYAZIDE®
ADD OR SUBSTITUTE GUANETHIDINE
DYAZIDE®
ADD VASODILATOR
DYAZIDE®
ADD BETA-BLOCKER, CNS INHIBITOR OR RESERPINE
DYAZIDE®
EFFECTIVE STEP 1 DIURETIC THERAPY† (when the combination represents previously titrated dosage)

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K^+ supplement or K^+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K^+ supplement or K^+-sparing agent).

Serum K^+ and BUN should be checked periodically (see Warnings).

Before prescribing, see complete prescribing information in SK&F Co. literature or *PDR*. The following is a brief summary.

* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Watch for signs of impending coma in severe liver disease. If spironolactone is used concomitantly, determine serum K^+ frequently; both can cause K^+ retention and elevated serum K^+. Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. Dyazide® interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances. Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established.

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

SK&F CO.
a SmithKline company
Carolina, P.R. 00630

Hiring a New Doctor for Your Practice

By
Leif C. Beck, LL.B., C.P.B.C.
Geoffrey T. Anders, J.D., C.P.A.
Dorothy R. Sweeney

FAIR ARRANGEMENTS between a senior physician or existing group and a young doctor ining with him or them are the subjects of many quiries from physicians. Both sides are curious. he hiring side wants to know what should be ffered, and the doctor just finishing residency ants help in evaluating a prospective practice.

Our sample hiring letter reflects the changes in e supply and demand of physicians that we have ritten about before (*Pennsylvania Medicine*, ne, 1980). However the details of the hiring rrangement are agreed, they should be in writ- g between the parties to avoid any possible isunderstandings or embarrassments.

We do not consider a fancy legal document as nportant as the letter written by a physician to a hysician. The physicians are the ones who must nderstand their relationship. For this reason, r accompanying "Dr. New Letter" may prove eful in this hiring season (Fig. 1).

hort Term Economics

Although the employing doctor or group in- riably seeks an additional physician for long- rm considerations (to handle the increasing pa- ent load, to share responsibility, review, cover- e, etc.), the employer is becoming increasingly ware of the likely short-term effect on his own t income.

First, the cost of hiring another physician will considerably more than the agreed salary. If, r example, a package of employe benefits (many which are discussed in later sections of this ticle) is offered to the new physician, the addi- nal cost of those benefits may amount to up- rds of $10,000 plus the additional malpractice surance premium cost.

The hiring also may necessitate moving to larg- office space, buying more equipment and em- oying more supporting personnel (nurses, sec- taries, bookkeepers, etc.). To continue the ex- nded practice without enough examining rooms, equipment and lay assistance would indeed be a false economy, although a hiring physician too often tends to ignore or resist these accompanying changes. The changes may add $15,000 to $25,000 or more.

The first-year expenditures due to a new physician could easily add up to $60,000 or more. Thus, one should question how many fee incomes will be received because of his presence.

The new doctor will begin his employment with no patient load at all. It will take time, perhaps several years, for him to develop a comparable volume. Even when the existing practice has an overflow of business, there may be a time delay in integrating the new physician into that activity. Finally, because of the normal time lapse between performing a service and collecting the fee, there will be little income from the new physician's work during the first two or three months regardless of his activity — a factor which may mean only nine or ten months' income during his first full year of work.

These first-year economic factors are not intended to dissuade one from seeking additional help. Rather, they should be recognized and evaluated so the hiring physician will be able to plan his personal economics according to what may be a year of lower income. This is particularly true of an incorporated physician because the income and expense projection may indicate a need to reduce the owner's salary. It is far better to take such a step in advance than at a later date when an actual negative cash flow begins to strike.

Promises of Partnership

A common practice that has developed is hiring a new doctor as an employe for one year and then taking him or her in as a partner or shareholder (on a basis gradually approaching equality) beginning in the succeeding year. Sometimes, the new physician's employment extends two years before partnership but rarely longer. While the initial hiring is in progress, however, one must consider how specific and how binding to make the future partnership arrangements.

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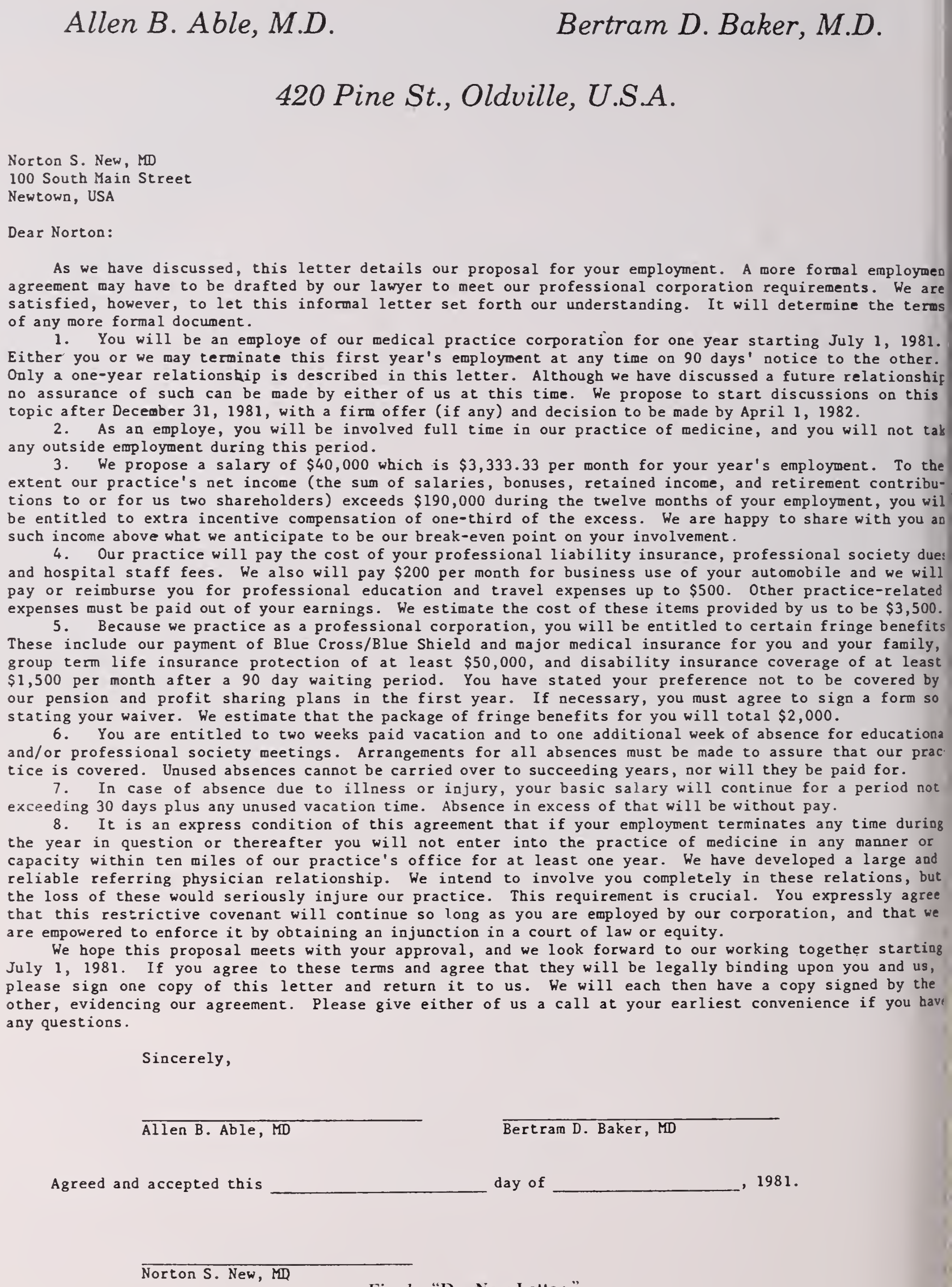


Allen B. Able, M.D. *Bertram D. Baker, M.D.*

420 Pine St., Oldville, U.S.A.

Norton S. New, MD
100 South Main Street
Newtown, USA

Dear Norton:

As we have discussed, this letter details our proposal for your employment. A more formal employmen agreement may have to be drafted by our lawyer to meet our professional corporation requirements. We are satisfied, however, to let this informal letter set forth our understanding. It will determine the terms of any more formal document.

1. You will be an employe of our medical practice corporation for one year starting July 1, 1981. Either you or we may terminate this first year's employment at any time on 90 days' notice to the other. Only a one-year relationship is described in this letter. Although we have discussed a future relationshi no assurance of such can be made by either of us at this time. We propose to start discussions on this topic after December 31, 1981, with a firm offer (if any) and decision to be made by April 1, 1982.

2. As an employe, you will be involved full time in our practice of medicine, and you will not tak any outside employment during this period.

3. We propose a salary of $40,000 which is $3,333.33 per month for your year's employment. To the extent our practice's net income (the sum of salaries, bonuses, retained income, and retirement contributions to or for us two shareholders) exceeds $190,000 during the twelve months of your employment, you wil be entitled to extra incentive compensation of one-third of the excess. We are happy to share with you an such income above what we anticipate to be our break-even point on your involvement.

4. Our practice will pay the cost of your professional liability insurance, professional society due and hospital staff fees. We also will pay $200 per month for business use of your automobile and we will pay or reimburse you for professional education and travel expenses up to $500. Other practice-related expenses must be paid out of your earnings. We estimate the cost of these items provided by us to be $3,500.

5. Because we practice as a professional corporation, you will be entitled to certain fringe benefits These include our payment of Blue Cross/Blue Shield and major medical insurance for you and your family, group term life insurance protection of at least $50,000, and disability insurance coverage of at least $1,500 per month after a 90 day waiting period. You have stated your preference not to be covered by our pension and profit sharing plans in the first year. If necessary, you must agree to sign a form so stating your waiver. We estimate that the package of fringe benefits for you will total $2,000.

6. You are entitled to two weeks paid vacation and to one additional week of absence for educationa and/or professional society meetings. Arrangements for all absences must be made to assure that our practice is covered. Unused absences cannot be carried over to succeeding years, nor will they be paid for.

7. In case of absence due to illness or injury, your basic salary will continue for a period not exceeding 30 days plus any unused vacation time. Absence in excess of that will be without pay.

8. It is an express condition of this agreement that if your employment terminates any time during the year in question or thereafter you will not enter into the practice of medicine in any manner or capacity within ten miles of our practice's office for at least one year. We have developed a large and reliable referring physician relationship. We intend to involve you completely in these relations, but the loss of these would seriously injure our practice. This requirement is crucial. You expressly agree that this restrictive covenant will continue so long as you are employed by our corporation, and that we are empowered to enforce it by obtaining an injunction in a court of law or equity.

We hope this proposal meets with your approval, and we look forward to our working together starting July 1, 1981. If you agree to these terms and agree that they will be legally binding upon you and us, please sign one copy of this letter and return it to us. We will each then have a copy signed by the other, evidencing our agreement. Please give either of us a call at your earliest convenience if you hav any questions.

Sincerely,

________________________ ________________________
Allen B. Able, MD Bertram D. Baker, MD

Agreed and accepted this ________________ day of ________________, 1981.

____
Norton S. New, MD

Fig. 1 "Dr. New Letter."

We used to advise that neither party commits himself to partnership arrangements when negotiating the initial year's employment, but that philosophy is changing. The supply and demand circumstances are such that the senior doctor may feel the need to secure the future deal immediately for his own protection. A young physician will have a stronger "negotiating position" a year later f he has done good work and built some patient or referrer reputation.

On the other hand, the newly hired physician needs assurance that the group or hiring doctor will not feel so squeezed by short-term economics hat they then offer him a less generous part-ership arrangement than had been discussed. lthough a prime purpose of the first year is to ermit both parties to appraise the desirability of vorking together indefinitely thereafter, some ssurances seem to be needed by both sides. De-pite that, our basic "Dr. New Letter" does not nclude the future deal in its text. We leave that ubject to be expressed separately.

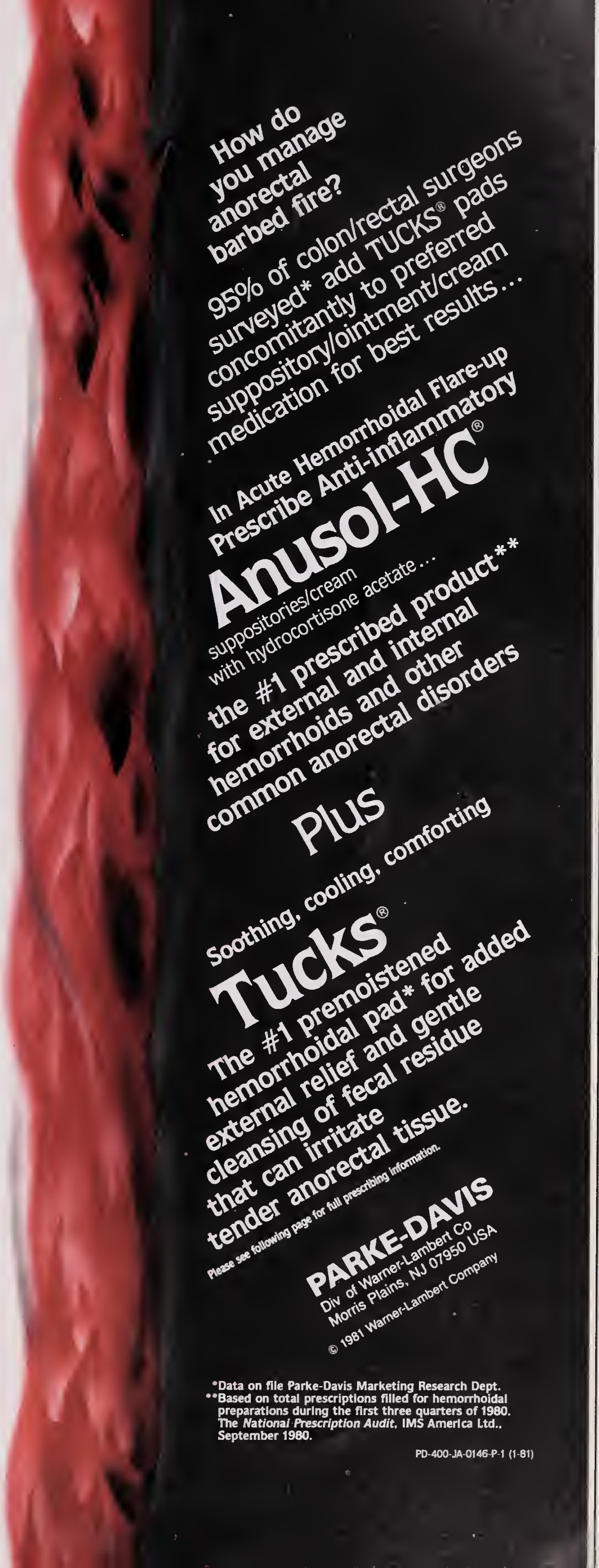
Compensation

Starting salaries range from $25,000 to more han $50,000 (and far higher for a few especially carce subspecialties). There is no "correct" fig-re. The high-income specialties and many of the rgical specialties (orthopedic surgery, obstet-cs/gynecology and urology, for instance) seem to e offering starting pay at $40,000 and higher. oth parties should recognize, however, that a w thousand dollars difference in first-year pay is significant over the longer term.

We often encourage our clients to offer an additional "incentive compensation," perhaps 40% to 0% of the gross net income above that necessary meet the cost of the new physician. Such an fer shows the new employe that the existing ractice is not trying to profit financially from his ork and, instead, is delighted to have him ben-it from any profit he generates above his basic rning level.

RINGE BENEFITS

As a minimum, we believe the employer hould offer the new physician basic health insur-ance coverage (Blue Cross/Blue Shield or the quivalent). If the practice is incorporated, the ring party (the corporation's owner or owners), ay have medical expenses, major medical insur-ance, and accident and health (disability) insur-ance paid for by the corporation. In that event, we rongly recommend that the equivalent advan-


How do you manage anorectal barbed fire?

95% of colon/rectal surgeons surveyed* add TUCKS® pads concomitantly to preferred suppository/ointment/cream medication for best results...

In Acute Hemorrhoidal Flare-up Prescribe Anti-inflammatory

Anusol-HC®

suppositories/cream with hydrocortisone acetate...

the #1 prescribed product** for external and internal hemorrhoids and other common anorectal disorders

Plus

Soothing, cooling, comforting

Tucks®

The #1 premoistened hemorrhoidal pad* for added external relief and gentle cleansing of fecal residue that can irritate tender anorectal tissue.

Please see following page for full prescribing information.

PARKE-DAVIS
Div of Warner-Lambert Co
Morris Plains, NJ 07950 USA
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*Data on file Parke-Davis Marketing Research Dept.
**Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1980. The *National Prescription Audit*, IMS America Ltd., September 1980.

PD-400-JA-0146-P-1 (1-81)

TUCKS® Pre-Moistened Hemorrhoidal/Vaginal Pads
Hemorrhoids and other anorectal uses—TUCKS extra-soft cloth pads allow for the gentlest possible application to tender, inflamed, hemorrhoidal tissue. TUCKS are effective cleansing pads for everyday personal hygiene. Used on outer rectal areas, they remove residue that can bring on more irritation. Pads are premoistened with 50% witchhazel, 10% glycerin USP and de-ionized purified water USP which acts as a cooling, soothing lotion to help comfort sensitive anorectal tissue.
Vaginal Uses—Comforting as an adjunct in postoperative care after episiotomies and other vaginal surgery or when relief from vaginal itching, burning or irritation is required.

ANUSOL-HC® SUPPOSITORIES
Hemorrhoidal Suppositories with Hydrocortisone Acetate
ANUSOL-HC® CREAM
Rectal Cream with Hydrocortisone Acetate
Caution: Federal law prohibits dispensing without prescription.
Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.
Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.
Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.
The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.
Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.
Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.
Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.
Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.
Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.
Prolonged or excessive use of corticosteroids might produce systemic effects.
If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.
In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.
Anusol-HC is not for ophthalmic use.
Pregnancy
See "WARNINGS"
Pediatric Use
Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.
Dosage and Administration: Anusol-HC Suppositories—
Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.
Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.
NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.
How Supplied: Anusol-HC Suppositories—boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.
Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.
Store between 59°-86°F (15°-30°C).
1089G010

PARKE-DAVIS
Div of Warner-Lambert Co
Morris Plains, NJ 07950 USA

tages be offered to the new physician. It will hel to show the IRS that the corporation offers i benefits beyond just the owners, and it will con vey to the new employe an intent to favor him ju as the owners favor themselves.

If the practice is incorporated, it also will hav to consider the cost of covering the new physicia in its pension and/or profit sharing plans. This ca be a substantial additional cost since the plan may call for a contribution up to 25% of the em ployes' salaries.

The hiring physician should be especiall mindful of this cost when first discussing com pensation. We advise his speaking in terms com bining both current and deferred pay from th beginning. For instance, if $40,000 is contem plated from the beginning, we suggest that an discussion clearly establishes that such a figure i a total combining salary and retirement contribu tion. It would mean a $32,000 salary and a $8,000 retirement contribution in this example

For obvious reasons, a young physician usuall will prefer cash compensation to retirement con tribution. When the attorney or other pension advisors find it possible, the hiring medical cor poration can give the new physician the oppor tunity to decline coverage in the retirement plan for the first few years and to receive the difference as higher salary. We call this election "opting out" of the plan. In the preceding example, the new physician may be offered a $40,000 starting salary if he wishes to elect nonparticipation in the plan. This would clearly appeal to him without costing the corporation additionally.

Payment of Expenses

The parties also should have a clear advance understanding as to the professional expenses the employer will pay. Malpractice insurance premiums, professional society dues and hospital staff fees are borne most often by the employer. Some senior physicians are so set back by the malpractice cost that they attempt to have the new employe bear it, but we consider it a cost which the employer should bear — even though it may affect the salary he can offer the young doctor.

Many employers also offer to pay the expenses for travel to and attendance at professional education and society meetings, although it may be desirable to place a limit on such expenditures for the year. All of these expenses seem to benefit the employer as well as the employed physician.

The hiring doctor also should consider whether or not to pay the new physician's automobile expenses, entertainment expenses, and the like. Especially if a professional corporation is involved and such marginally appropriate items are being provided for the present physician-owners, providing them for a new physician who is not a shareholder would help to improve the argument that the expenses actually deserve the intended tax treatment.

The expenses and fringe benefits the employer pays for his new doctor should be evaluated in dollar figures so the new employe understands that his compensation will exceed the amount of his straight salary. In fact, the employing physician or corporation often will decide to reduce the salary offer by the dollar value of several fringe benefits while still providing the desired compensation level. A doctor willing to receive a $30,000 salary, for example, should be delighted to receive instead a $25,000 salary plus benefits which will reduce his out-of-pocket obligations by $5,000.

Vacations and Illness

The limits on permissible absence also should be set out in advance of the actual employment. Since a person's health or vacation attitudes are difficult to anticipate, such limits protect the employer. They are valuable to the new employe ince he will know his absence rights and, thus, void embarrassments if and when the absences re needed or desired.

We feel that a newly hired physician needs to e offered only two weeks' vacation in his first ear of employment. It is not unusual for clients o offer three or four weeks. The decision should epend in large part on how well the expanded ractice can be maintained during his absence.

As to extended absence due to illness or injury, rofessional practices generally are willing to low four weeks of absence without loss of pay uring the first year. Although the allowable sick ave should be extended as a physician works his ay into partnership, he has not really earned an tensive absence right when so newly hired. specially if the employer carries some accident d health (disability) insurance on each physian or reimburses each physician for his own sability premiums, four weeks of paid absence ue to illness should be considered quite generus at that stage of the employment relation. hatever the limits and rights, they should be set t in advance and respected by both parties.

Fairness to the young physician calls for some

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consideration of his salary if the senior doctor should become disabled. This may call for a general undertaking to reevaluate matters in such an event or for a specifically agreed change in compensation. We consider this reasonable when the new doctor is joining a solo practice, but we usually do not recommend or agree with it when a group of physicians is involved.

Restrictive Covenant

We had not been enthusiastic throughout the years about including an agreement not to practice competitively in case the new relationship should not work out. Under such a covenant, a new physician would agree that he will not practice medicine in his employer's area for a stated period of time after his employment relationship ends. In effect, the covenant attempts to assure the hiring physician or group that the employe will not leave and set up his own practice, perhaps after having built up his patient following or referral sources at his employer's expense.

The traditional lack of interest in noncompetition promises came from the physicians' practice circumstances. Practices were so busy that a young doctor's defection and entry into practice did not matter. There were plenty of patients to be seen. At the time, the law of supply and demand permitted all physicians to do well.

Now, however, things seem to be changing. An existing practice cannot be so sure it will continue to grow or that it can avoid losing income if a segment of its patients should defect. On th other hand, a young physician cannot be so sure c being able to start a practice on his own — without first having nurtured some patients or referrers.

We are advising hiring physicians to insis more forcefully on agreements not to compete Nonetheless, we are more understanding when young physician shows us such a provision in hi proposed arrangement. Seniors are becomin more reluctant to stake young physicians in practice at their own expense if the new physicians d not progress to partnership.

Restrictive covenants generally are enforceabl in most states if reasonable as to the distance an time involved. For example, a provision tha states the reasons for its inclusion and that prohibits the same specialty practice within five o ten miles for one year after departure generall will be upheld.

Conclusion

Taking on a new physician is a matter primaril for doctor-to-doctor discussion on a mutual professional basis. There is much to consider. Som of the concerns are complex enough to requir more experienced legal or business advice, bu the physicians should stay in control of the situation. The new and old physicians will have t work with each other in trust and confidence hopefully, for years. The "Dr. New" arrangemen is just the first installment of the relationship.

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MSMA Members Receive Physician's Recognition Award

Fifty-one MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the period of July, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in Missouri Medicine as they are received from the AMA.

Ali A. Arbab, Kansas City
Keith W. Ashcraft, Kansas City
John D. Bauer, St. Louis
Frederick D. Bauschard, St. Louis
McPherson S. Beall, Kansas City
David J. Clark, Cape Girardeau
Mary C. Colglazier, Kansas City
Thomas A. Coppinger, Kansas City
Adelia L. M. Doerhoff, Jefferson City
Robert C. Donaldson, St. Louis
Walter G. Dukstein, Kansas City
Donald A. Fakhoury, Kansas City
Allan R. Fleming, Kansas City
Virginia L. Fogerson, Springfield
Joseph Gagliardo, Clayton
Moheb A. S. Hallaba, Joplin
Thomas P. Hanley, St. Louis
William R. Harrin, Kansas City
Edwin M. Herman, Kansas City
Ronald A. Higgins, Kansas City
Robert S. Hunt, Cape Girardeau
Morton Jacobs, Kansas City
Victor T. Jones, St. Charles
Melvin C. Kasten, Cape Girardeau
James S. Key, Springfield
Thomas K. Krummenacher, St. Louis
Donald E. Kuenzi, Kansas City
Rodger W. Lambie, Kansas City
Lawrence M. Lampton, Columbia
King Y. Lee, Kansas City
Richard W. Maxwell, St. Louis
Larry E. Millikan, Columbia
John J. O'Hearne, Kansas City
James L. Owens, Kansas City
Gary L. Pack, Kansas City
Jay T. Peterson, Kansas City
Lowell K. Pottenger, Joplin
Erich A. Quer, Kansas City
Hubert A. Ritter, Richmond Heights
Wallace A. Rogers, Columbia
Anthony J. Romito, Kansas City
Vidya S. Sharma, Kansas City
Thomas H. Smith, Kansas City
Charles L. Thompson, Kansas City
Bennie N. Till, Poplar Bluff
Ronald M. Wachter, Springfield
Gary S. Wasserman, Kansas City
Robert K. Weir, Kansas City
Stoughton F. White, Kansas City
Frederick C. Whittier, Kansas City
Mardonio J. R. Yap, Florissant

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri School of Medicine
Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
Contact: **William D. Bradshaw, M.D.**

Oct. 2-4	Missouri Ear, Nose and Throat Society Fall Meeting (Lodge of Four Seasons, Lake Ozark)
Oct. 15-16	Third Annual Perinatal Association Meeting
Oct. 17	Third Annual Recent Advances in Clinical Ophthalmology Conference
Oct. 17	Seminar on Infant Development
Oct. 23-24	22nd Annual M.D. Day
Oct. 24	Annual Missouri Pathology Association Meeting
Oct. 29-31	Third Annual Advances in Rheumatology Symposium
Nov. 5-6	M.D. Day West (Hilton Harvest House, Boulder, Colo.)
Nov. 13-14	Dysphagia: Pharyngeal and Upper Esophageal Causes
(1982)	
Jan. 6-9	Diagnosis and Treatment of Headache (Camelback Inn, Scottsdale, Ariz.)
Feb. 15-17	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10-11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29-30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	A Working Conference on Authority, Responsibility and Organization
Apr. 22-23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

Missouri Perinatal Association
P.O. Box 1431, Jefferson City 65102
Contact: **Judy Sommers**

Oct. 15-17	Third Annual Meeting — Missouri Perinatal Association (The Ramada Inn, Columbia)

University of Missouri-Kansas City School of Med
cine — Kansas City Southwest Clinical Societ
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
Contact: **Alta Bingham**

Oct. 29-31	Annual Fall Clinical Conference – Kansas City Southwest Clinical Sc ciety (Alameda Plaza Hotel)
Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)
(1982)	
Jan. 16-23	Traveling Medical Education Cours — Kansas City Southwest Clinic Society (Steamboat Springs, Colo.)
Feb. 19-20	The Long Weekend: Medical Prob lems in the Patient Who Need Surgery (Hyatt Regency Hotel)
Feb. 21-28	Traveling Medical Education Cours — Kansas City Southwest Clinic Society (Palm Springs, Calif.)
Feb. 28- Mar. 7	Traveling Medical Education Cours — Kansas City Southwest Clinic Society (St. Thomas, U.S. Virgin Islands)
Mar. 18-20	Perspectives in Medical Care (Hyatt Regency Hotel)
Mar. 20-27	Traveling Medical Education Cours — Kansas City Southwest Clinic Society (Crested Butte, Colo.)
Mar. 31- Apr. 3	Update in Obstetrics and Gynecolog (Alameda Plaza Hotel)
May 6-7	Surgical Problems — The Old and th New (Alameda Plaza Hotel)
June 5	Symposium on Physical Fitness (Crown Center Hotel)

St. Louis University Medical Center
Continuing Education
3544 Caroline St., St. Louis 63101
(314) 664-9800, Ext. 127
Contact: **John A. Grellner, Director**

Oct. 7	Symposium on Clinical Dermatolog
Dec. 9	Pulmonary Problems for Emergenc Physicians

Greater Kansas City Radiological Society

Note: 4:00 PM lectures will be held in the Dept. of Diagnostic Radiology, University of Kansas Medical Center, Kansas City, Kan.
6:30 PM lectures will be held at the Alameda Plaza Hotel, Kansas City

Oct. 14	4:00 PM Percutaneous Transluminal Angioplasty Technical Considerations 6:30 PM Percutaneous Transluminal Angioplasty Clinical Applications and Results
Nov. 13	8:30 PM Malpractice and the Radiologist
(1982)	
Jan. 13	4:00 PM CAT Scanning of the Appendicular Skeleton 6:30 PM CAT Scanning of the Spine
Feb. 10	4:00 PM Recent Advances in Diagnostic Ultrasound 6:30 PM Obstetrical Ultrasound: An Update
Mar. 10	4:00 PM Digital Radiography — Equipment and Technical Considerations 6:30 PM Digital Radiography Clinical Applications
Apr. 14	4:00 PM Percutaneous Abscess Drainage 6:30 PM Percutaneous Biopsy Techniques

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Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Oct. 10	Two-Dimensional Echocardiography: Current and Future Applications
Oct. 11	Vitreoretinal Symposium '81
Oct. 22	Selected Topics in Infectious Diseases, Obstetrics and Gynecology, and Surgery
Nov. 5-7	Clinical Allergy for the Practicing Physician
Nov. 13-15	Eighth Annual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
Dec. 10-12	Current Concepts in Cancer Therapy — Missouri Chapter, American Cancer Society (Stouffer's Riverfront Towers)
(1982)	
Jan. 17-22	Pediatric Gastrointestinal Disease (Keystone, Colo.)
Jan. 23-30	Obstetrics and Gynecolory (Aboard the M/S Southward)
Apr. 2-5-May 3	Fourth Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Athens, Greece)

Mercy-Baptist Eye Foundation
Suite 343, 615 S. New Ballas Rd., St. Louis 63141
***Contact:* Jack Harstein, M.D. or Richard B. Oglesby**

Oct. 11	13th Eye Seminar — Glaucoma

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4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

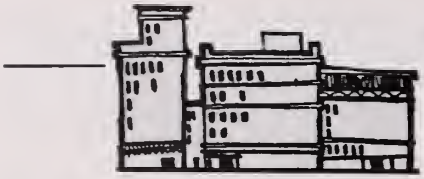
4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

	9:00 AM — Medicine Staff Conference (First, third and fourth Tuesdays)
Nov. 18-20	Clinical Advances in Pediatrics (The Children's Mercy Hospital)

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Oct. 1-3	50th Anniversary Celebration
Oct. 2	Tenth Annual Wendell G. Scott Lecture
Nov. 9	City-Wide Radiological Conference — Single-Photon Emission Tomography
Dec. 14	City-Wide Radiological Conference — Skeletal Injuries in Sports
(1982)	
Jan. 11	City-Wide Radiology Conference St. Louis University
Feb. 8	City-Wide Radiology Conference — CT of the Genitourinary Tract
Mar. 8	City-Wide Radiology Conference — Photo-Electronic (Digital) Radiology
Apr. 14	Leroy Sante Lecture by Dr. Benjamin Felson, University of Cincinnati
May 10	City-Wide Radiology Conference — Neuroradiology



NEWS

From the Medical Schools

WASHINGTON UNIVERSITY

William H. Danforth, M.D., chancellor of Washington University, has announced the appointment of *Samuel A. Wells*, M.D. as Bixby Professor and head of the Medical School's Department of Surgery. Dr. Wells will also become surgeon-in-chief at Barnes and St. Louis Children's hospitals.

Dr. Wells

The Bixby Professorship, named after St. Louis businessman and philanthropist William Keeney Bixby, was established in 1910. It was one of three endowed chairs established at the School of Medicine in that year.

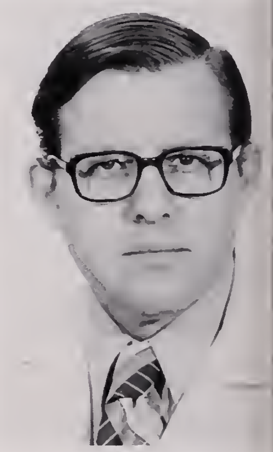
Dr. Wells, who is currently professor of surgery at Duke University Medical Center, is best known for his transplantation of the parathyroid glands which produce parathormone, a hormone that regulates calcium and phosphate metabolism. His research interests include the transplantation of endocrine tissues and the study of tumor markers, substances secreted by the tumors and useful in locating them.

Dr. Wells graduated from Emory University Medical School in 1961. He interned and served his residency in internal medicine at Johns Hopkins Hospital. He was a surgical resident at Barnes Hospital and, then, a clinical associate, Surgery Branch, National Cancer Institutes, National Institutes of Health. In 1966, Dr. Wells joined Duke University Medical Center as a general surgery resident and, in 1970, he became an assistant professor of surgery. At that same time, he was senior investigator, Tumor Immunology Section, Surgery Branch, National Institutes of Health. While at Duke, he was director of its Clinical Research Unit and Chairman, Treatment Committee, Breast Cancer Force, National Cancer Institutes.

Dr. Wells is a member of Alpha Omega Alpha, the American College of Surgeons, the Society of University Surgeons, the American Surgica Association and the American Society for Clinica Investigation.

ST. LOUIS UNIVERSITY

Donald L. Kaminski, M.D., professor c surgery, has been awarded two grants totalin $359,349 from the National Institute of Arthriti Metabolism and Digestive Disorders. He will study the liver and gallbladder cell mechanisms involved in the formation and storage of bile, the material secreted by the liver. It is hoped that the research will be useful in treating patients with liver and gallbladder diseases.



Dr. Kaminski

Dr. Kaminski is a 1966 graduate of Creighton University Medical School and has been a member of th surgical faculty at St. Louis University Medic Center since 1972.

Allyn Howlett, Ph.D., assistant professor c pharmacology, has been awarded a faculty development award from the Pharmaceutical Manufacturers Association (PMA) Foundation.

The award will provide salary for Dr. Howlett who is researching drug dependence and tolerance on brain cells. By using tumor cells of th mouse brain, he hopes to better understand ho single nerve cells adapt to neurotransmitters an the drugs that mimic them.

The PMA Foundation awarded more than $ million in fellowships and grants this year. Dr Howlett was one of three researchers nationwid to receive a faculty development grant in basi pharmacology.

Gary F. Gerard, Ph.D., associate professor c molecular virology, has received a two-yea $130,000 grant from the American Cancer Societ to study the life cycle of mouse RNA tumo viruses. Known as retroviruses, these viruse cause cancer in most animal species.

Dr. Gerard will focus on the Moloney leukemia virus which causes leukemia in mice. His work will help to contribute to research about how human cells become malignant and how to prevent malignancy.

Alan B. Silverberg, M.D., senior instructor in nternal medicine, has been awarded a one-year, $15,000 grant from the American Diabetes Association-St. Louis to study the effect of diabetes mellitus on sexual gland function in male rodents. Erectile impotence, infertility, structural abnormalities in sexual glands and the mechanism of action of steroid hormones will be studied.

Results from these experiments may suggest new areas of investigation in experimental or human diabetes.

UNIVERSITY OF MISSOURI-KANSAS CITY

Dr. Edward Cross, a former assistant surgeon general in the office of the Secretary of the Department of Health and Human Services, and former vice-provost for the health sciences at UMKC, visited the School of Medicine early in September. His subject for University Hour was "The New Federalism: Partnership for Health Revisited."

Dr. Cross received his M.D. degree from Howard University Medical School in Washington, D.C. and completed an internship and residency with the U.S. Public Health Service. During his service with the USPHS, he was medical director of the Peace Corps in Addis Ababa in Ethiopia.

More than 30 high school students from the Kansas City area participated in the School of Medicine's Summer Scholars program for minority and disadvantaged students in August. The program is one of the School's efforts to recruit more minority students. *Dr. Willie McLemore*, assistant professor of medicine and director of minority recruitment, organized the program one year ago with the assistance of *Dr. Ken Mares*, evaluation director of the Western Missouri Area Health Education Center. That agency and the Truman Medical Center, Children's Mercy Hospital, the School of Medicine and the Academy of Health Professions all fund the program.

Two faculty members of the School of Medicine were killed in the collapse of the sky walks at the Hyatt Regency Hotel in Kansas City on July 17. *Dr. Thomas A. Mahvi*, chairman of the Microbiology Department and professor of dentistry and biology, and *Dr. Jerold M. Rau*, associate clinical professor in dermatology, died at the hotel.

Dean Harry S. Jonas praised the endeavors of the School of Medicine students and faculty who spent the night working both at the hotel and at Truman Medical Center and other area hospitals. *Dr. E. Grey Dimond*, interim chairman of the Department of Medicine, said, "What may mask itself as a repetitive task, gaining results slowly and even sometimes unappreciated, is in fact a very serious creative action, bringing into existence men and women who save lives and whose actions are essential and whose training is a grave and precious responsibility. Reminders of this are painful and often appreciated only in crisis, war or tragedy. Our own testimonial that doctors have special skills, make special commitments and serve in a special way came on this tragic night."

Stephen M. Ayres, M.D., professor and chairman, Department of Internal Medicine, St. Louis University Medical Center, presented the third annual St. Louis Friends of the University of Missouri-Kansas City School of Medicine Distinguished Lectureship earlier this month at the School of Medicine. Dr. Ayres spoke on "Multiple Organ Failure" on September 10 and on "Cigarette Smoking: The Hidden Persuaders" on September 9.

UNIVERSITY OF MISSOURI-COLUMBIA

Dr. Travis E. Solomon has been appointed associate chief of staff for research and development at the Harry S. Truman Memorial Veterans Hospital in Columbia after transfer from Wadsworth VA Medical Center in Los Angeles. There he held the position of clinical investigator and adjunct assistant professor in the UCLA School of Medicine.

Dr. Solomon, who earned his Ph.D. degree in physiology and a medical degree from the University of Texas at Houston, holds a faculty appointment as associate professor of physiology at the UMC School of Medicine. He served an internship in medicine here in 1974.

The $1 million research program at the Truman VA facility supports basic science research in alcoholism, hypertension and renal function as well as clinical studies in medicine, surgery, psychiatry, psychology and related areas. Dr. Solomon's research interests in the neurol-humoral regulation of GI functions have yielded numerous scientific publications.

(Continued on next page)

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Corinne Farrell, M.D., professor of radiolog and bioengineering, was the invited speaker fo the 90th Commencement Program at her alm mater, Central Washington University in Ellensburg, Wash.

Speaking on the value of individual responsibility, Dr. Farrell told the graduates that "som values remain fixed in their importance to Americans" in these times of federal and state budge cuts, general reduction of government services assassination attempts on the lives of world leaders, times of turmoil and rapidly moving events

Foremost among such values are individual responsibility and integrity, she said. "Over dependence on government funding has reduce initiative and made us less responsible fo ourselves and our families — to say nothing of ou life goals."

Discussing the dilemma that private and stat colleges and universities face with current cutbacks in financial aid, the physician said that concerned alumni, faculty, business people and private citizens should recognize the importance o education today and support institutions of learning as individuals.

"People will support endeavors that they kno are worthwhile," Dr. Farrell said. "Educatio develops essential skills and qualities that ar more important than the assimilation and production of information. Essentials such as integrity perseverance, problem-solving, decision-making, and priority-setting are truly life skills" tha are products of education.

This year's graduates "have the opportunity t become the new responsible generation" in confronting society's problems, Dr. Farrell concluded. "There is no free lunch."

Dr. David Bylund, assistant professor of pharmacology, has joined the editorial board of th *Journal of Pharmacology and Experimental Therapeutics*.

Dr. Friedhelm Schroeder, assistant professo of pharmacology, has been awarded membershi in the American Society for Biological Chemists

Dr. Karl D. Nolph, professor of medicine an director of the Nephrology Division at the Healt Sciences Center; *Dr. Michael I. Sorkin*, assistan professor of medicine; and *Barbara Prowant* R.N., senior CAPD nurse, were in Germany Switzerland and The Netherlands this summe for a series of symposia concerning research a UMC in continuous ambulatory peritoneal dialysis (CAPD). They lectured in Munich, Berlin Amsterdam and Zurich.

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New Members

John C. Callenbach, M.D., Children's Mercy Hospital, 24th and Gillham, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Callenbach received his preliminary education at Washington State University and his M.D. degree at the University of Washington in 1973. He specializes in pediatrics and neonatology.

Gail M. Casemore, M.D., 2727 Main, Suite 208, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Casemore received her preliminary education at the University of Wisconsin and her M.D. degree at the University of Wisconsin in 1977. She specializes in pediatrics.

Roy M. Dement, M.D., 666 Lester, Poplar Bluff 63901, has become a member of Butler-Wayne-Ripley-Carter Counties Medical Society. Dr. Dement received his preliminary education at Tulane University and his M.D. degree at the University of Tennessee in 1974. He specializes in general surgery.

Prem N. Dua, M.D., P. O. Box 210, Bonne Terre 63628, has become a member of Jefferson County Medical Society. Dr. Dua received his preliminary education at Govi College and his M.D. degree at Panjab University in 1961. He specializes in pediatrics.

In Memoriam

David M. Skilling, M.D., 5505 Delmar, St. Louis 63112; graduate of Washington University, 1928; member of St. Louis Metropolitan Medical Society; aged 81; died July 15, 1981.

Jerold M. Rau, M.D., 6024 Morningside Dr., Kansas City 64113; graduate of the University of Kansas, 1965; member of Jackson County Medical Society; aged 42; died July 17, 1981.

Landis Davis, M.D., 5th and Clark, Canton 63435; graduate of the University of Illinois, 1931; member of Lewis-Clark-Scotland Counties Medical Society; aged 73; died July 29, 1981.

Paula L. Eaton, M.D., 2301 Holmes, Kans City 64108, has become a member of Jacks County Medical Society. Dr. Eaton received h preliminary education at the University of Mi souri-Kansas City and her M.D. degree at th University of Missouri-Kansas City in 1977. Sh specializes in obstetrics and gynecology.

Robert E. Gardner, M.D., 35 Doctors' Par Cape Girardeau 63701, has become a member Cape Girardeau County Area Medical Societ Dr. Gardner received his preliminary educatio at Washington University and his M.D. degree Loyola Stritch School of Medicine in 1977. H specializes in neurology.

Kenneth R. Jefferis, M.D., P. O. Box 34 Maryville 64468, has become a member of Nort west Missouri Medical Society. Dr. Jefferis r ceived his preliminary education at Goshen Co lege and his M.D. degree at Indiana University 1972. He specializes in surgery.

Don P. Miller, M.D., 701 W. High, Jeffers City 65101, has become a member of Cole Cou ty Medical Society. Dr. Miller received his pr liminary education at the University of Kans and his M.D. degree at the University of Kans in 1975. He specializes in infectious diseases.

Lillian G. Pardo, M.D., 4440 Broadway, Ka sas City 64111, has become a member of Jacks County Medical Society. Dr. Pardo received h preliminary education at the University of th Philippines and her M.D. degree at the Univers ty of the Philippines in 1962. She specializes pediatric neurology.

Scot G. Pringle, M.D., 55 Doctors' Park, Ca Girardeau 63701, has become a member of Ca Girardeau County Area Medical Society. D Pringle received his preliminary education Baylor University and his M.D. degree at t University of Kansas in 1977. He specializes obstetrics and gynecology.

Linda Singh, M.D., 7507 Goddard, Apt. 20 Shawnee Mission, Kan. 66214, has become member of Jackson County Medical Society. D Singh received her preliminary education at t University of Missouri-Kansas City and her M. degree at the University of Missouri-Kansas Ci in 1979. She specializes in internal medicine.

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PRACTICE FOR SALE — Young general surgeon leaving a busy nine-year practice. Annual gross, $210,000. Office fully equipped. Received a referral from a large group of family practitioners. Very attractive community of 12,000 population with easy access to four large cities. Call: G. B. Manalo, M.D., Carthage, Mo. 417-358-8181.

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in Brief

A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

ESTABLISHMENT OF A SYSTEM to assess medical technology is being studied by the AMA's Council on Scientific Affairs. In his report to the House of Delegates in June, AMA E.V.P. James H. Sammons, M.D., said the Association is "prepared to make a major new commitment" in this area. "If the AMA is to represent physicians in a comprehensive way," Dr. Sammons said, "then it must be able to speak out with greater authority and timeliness in the field of technology. . . . Where technological questions cut across specialty lines, the AMA is clearly the logical body to take the initiative, to assemble expert opinion and present it to whatever forum seems appropriate." A spokesman for the Council said, "We believe that the assessment of technology should be done by knowledgeable panels representing the various medical specialties under the umbrella of the Council, rather than remain in the hands of the federal government." The AMA recently told Congress it opposed reauthorization of the National Center for Health Care Technology, pointing out that clinical policy analysis and judgments are better made within the medical profession.

THE MODEL STATE LEGISLATION on the determination of death, which was developed last year by the AMA, American Bar Association, and National Conference of Commissioners on Uniform State Laws, has been endorsed by the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research. The presidential commission urged all 50 states to adopt this model definition: "An individual who has sustained either (1) irreversible cessation of circulatory and respiratory functions or (2) irreversible cessation of all functions of the entire brain, including the brain stem, is dead. A determination of death must be made in accordance with accepted medical standards."

"AIR AMBULANCE GUIDELINES," produced jointly by the AMA's Commission on Emergency Medical Services and the U.S. Department of Transportation, provides physicians and air ambulance operators with factors to consider when planning air transportation of the ill or injured. Complimentary copies are available from General Service Division, National Highway Traffic Safety Administration, 400 Seventh St. S.W., Washington, D.C. 20590.

A NEW AMA VIDEOCASSETTE, "Borrowing Money: What a Doctor Needs to Know," is now available. The 27-minute color program is designed for medical students, residents and other physicians thinking of entering private practice. It explains how to budget for a new practice, explores financing options, and shows how to prepare for dealing with a banker. The videocassette can be rented or purchased in four formats: ¾" U-Matic, ½" VHS, and Betamax I or II. The cost is $25 for AMA members ($30 for nonmembers) to rent and $250 to purchase. A study guide is included. To order, send a check or purchase order with the type of playback format desired to Dept. of Practice Management, AMA Headquarters.

COMPUTERIZED MEDICAL INFORMATION systems, with proper peer review, would aid the advancement of medical practice, the AMA said in a statement to two subcommittees of the House Committee on Science and Technology. The Association recommended that the development of such systems be left to the private sector, where competition will result in designs appropriate to varied medical needs. The AMA statement opposed the development by the federal government of a Coordinated Health Information System, which would create a national system of data collection on the health of individuals. The AMA said the CHIS proposal could compromise the individual's right of privacy and lead to the establishment of national standards of medical practice. On the other hand, computer-based systems providing information on medical advances "would significantly assist the ability of physicians to treat patients," the AMA commented.

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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion In about half of these reports the malformation was deafness related to auditory nerve hypoplasia Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys Quinamm is contraindicated in women who are or may become pregnant If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use Recovery usually occurs following withdrawal of the medication and appropriate therapy

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine Quinamm should be stopped immediately if evidence of hemolysis appears

If symptoms occur, drug should be discontinued and supportive measures instituted In case of overdosage, see OVERDOSAGE section of prescribing information

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS) Cutaneous flushing, pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity, particularly if only small doses of quinine have been taken Extreme flushing of the skin accompanied by intense, generalized pruritus is the most common form Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine (See Drug Interactions)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants

The effects of neuromuscular blocking agents (particularly pancuronium, succinylcholine, and tubocurarine) may be potentiated with quinine and result in respiratory difficulties

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0 1%) to rats for periods up to 20 months showed no evidence of neoplastic changes

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test Intraperitoneal injections (0 5 mM kg) were given twice, 24 hours apart Direct *Salmonella typhimurium* tests were negative when mammalian liver hemogenate was added positive results were found

No information relating to the effect of quinine upon fertility in animal or in man has been found

Pregnancy

Category X See CONTRAINDICATIONS

Nonteratogenic Effects

Because quinine crosses the placenta in humans, the potential for fetal effects is present Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown Quinine in toxic amounts has been associated with abortion Whether this action is always due to direct effect on the uterus is questionable

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts)

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (Individual or multiple symptoms may represent cinchonism or hypersensitivity)

Hematologic acute hemolysis, thrombocytopenic purpura agranulocytosis hypoprothrombinemia

CNS visual disturbances, including blurred vision with scotomata photophobia diplopia, diminished visual fields, and disturbed color vision, tinnitus, deafness and vertigo, headache, nausea vomiting, fever apprehension, restlessness confusion, and syncope

Dermatologic/allergic cutaneous rashes (urticarial the most frequent type of allergic reaction papular, or scarlatinal) pruritus flushing of the skin sweating occasional edema of the face

Respiratory asthmatic symptoms

Cardiovascular anginal symptoms

Gastrointestinal nausea and vomiting (may be CNS-related) epigastric pain

DRUG ABUSE AND DEPENDENCE

Tolerance abuse or dependence with Quinamm has not been reported

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose

DOSAGE AND ADMINISTRATION

1 tablet upon retiring If needed, 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring

After several consecutive nights in which recumbency leg cramps do not occur, Quinamm may be discontinued in order to determine whether continued therapy is needed

Product Information as of October 1980

Licensor of Merrell*

MERRELL-NATIONAL LABORATORIES Inc
Cayey Puerto Rico 00633

Direct Medical Inquiries to

Merrell

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WARNING: Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial prep
tions, prolonged use may result in overgrowth of n
susceptible organisms, including fungi. Appropri
measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not
common cutaneous sensitizer. Articles in the cur
literature indicate an increase in the prevalenc
persons allergic to neomycin. Ototoxicity and neph
toxicity have been reported (see Warning section).

Complete literature available on request from Pro
sional Services Dept. PML.

Wellcome

Burroughs Wellcome Co.
Research Triangle Park
North Carolina 27709

Missouri Medicine

Vol. 78, No. 10 (ISSN 0026-6620) October, 1981

Special Article

Requiem for a Frontier Physician

Chest Case of the Month

Diffuse Small Nodular Disease in a 38-Year-Old Woman

Hearing Loss

Noise Induced: Current Concepts

Editor's Corner

'Enough Is Enough!'

MISSOURI STATE MEDICAL ASSOCIATION

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MSMA

NEWS ROUND - UP

October, 1981

Council asks societies to establish cost effectiveness committees

Local medical societies will be requested to establish health care cost effectiveness committees following action of the MSMA Council, Sept. 26, in Jefferson City.

In seeking passage of a motion calling for the local cost effectiveness committee, Dr. Richard V. Bradley, St. Louis, Immediate Past President of the MSMA, said it is time for physicians to revitalize and underscore their commitment to the Voluntary Effort.

He said the Voluntary Effort is our best means of restraining costs while building toward a more cost effective system. It also may be our best means of forestalling greater cut-backs in health care payments by government.

In other actions, the Council:

- Approved the MSMA's Auxiliary participation in attempts to gain passage of a child auto restraint law.
- Directed Staff to request clarification of conflicting AMA membership figures.
- Voted to recommend Dr. John N. Martin, St. Joseph, for a position on the board of the American Medical Political Action Committee. Dr. Martin is Chairman of the Missouri Medical PAC.
- Accepted the resignation of Dr. Larry E. Millikan, Columbia, as Fifth District Councilor and seated Vice Councilor Dr. Alan L. Braun, Jefferson City, to serve until the 1982 Annual Session. Dr. Millikan has accepted a position with Tulane University in New Orleans, La.
- Appointed the 1982 Annual Session Arrangements Committee composed of Dr. Ronald A. Youmans, Kansas City, Dr. Richard C. Hedges, North Kansas City, and Dr. A. J. Campbell, Sedalia.
- Accepted the report of the Commission on Medical Economics. Third Party Medicine and Governmental Relations and instructed staff to contact General American Insurance Company regarding the holding up of payments to physicians.
- Accepted an amended report of the Commission on Interspecialty Medicine.
- Heard reports from Dr. Mario Garza-Gonzalez, President of the Missouri Board of Registration for the Healing Arts, and R. Mohammed Akhter, Director of the Missouri Division of Health.
- Scheduled the next MSMA Council meeting for December 11-12, 1981, at the Columbia Holidome.

Society secretaries asked to prepare 1982 dues

The MSMA is currently developing the dues billing form to be used for 1982 local, state and AMA dues. Therefore, all Component Medical Society secretaries need to submit to the MSMA, as soon as possible, the amount of local dues for 1982. Secretaries should also send in the names of their 1982 society president and secretary.

The MSMA will again collect dues for a growing number of component societies which have requested his service. Through the computer billing method, a bill is sent to local society members. The members send heir dues to the MSMA and MSMA issues a check to he component society secretary for all dues received. If your society is interested in exploring the billing method, please contact C.C. Swarens at MSMA Headquarters.

Dr. Matthews speaks on licensures

This month, MSMA Chairman of the Commission on Legislative Affairs, Dr. John I. Matthews, spoke out against the licensure of additional allied health personnel. Before the Interim Missouri House Commission on Licensure, Dr. Matthews pointed out how this measure would decrease medical services and increase costs.

Under such legislation, the rural areas would suffer the most, Dr. Matthews explained. "When the number of persons who can provide a service is limited, the cost for that service, normally increases to meet demand."

In a similar way, rural medical services could decrease. Now medical technicians can provide several part-time services, such as occupational therapy, x-rays and counseling. However, if these occupations became licensed, patients may have to travel to a licensed individual to receive treatment.

In recent session there have been bills which would license or register occupational therapists, professional counselors, mental health technicians, dental hygienists, physician assistants, social workers, radiation technologists and many others.

New rule mandates Medicaid patients to obtain second opinion

Emergency rules on the Missouri Register will mandate Medicaid patients to obtain a second medical opinion before the agency will pay for certain non-emergency, elective surgical procedures and related costs. The rule will become effective November 1, 1981.

Non-emergency, elective surgery is defined as those where the patient's life will not be threatened or the patient's health will not be permanently impaired by any delay in performing the surgery.

The following items are outlined in the new rule:

- The Division of Family Services reserves the right to, at any time, revise those elective surgical operations specified under the second opinion requirement.
- When the eligible Medicaid patient has obtained a proper second surgical opinion, regardless of whether or not it confirms the primary recommendation for surgery, the final decision to undergo or forego surgery shall remain with the patient.
- A third surgical opinion, provided by a third physician, shall be allowed by Missouri Medicaid if the second opinion fails to confirm the primary recommendation that there is medical need for the specific surgical operation, and if the eligible Medicaid patient desires the third opinion. Medicaid will not cover a further opinion.
- A second opinion must be obtained within 30 days after the primary recommendation. A third opinion must be obtained within 30 days after the second opinion. The specific surgical operation under consideration must be performed within 120 days after the primary recommendation.
- A physician providing a surgical opinion is not required to be either board-eligible or board-certified. However, the Medicaid patient shall be encouraged to seek a surgical opinion from a specialist in the appropriate medical field, wherever possible.
- The second (or third) opinion may be provided by a physician associated with the same medical practice as the primary physician, although the Medicaid patient shall be encouraged to seek the second (or third) opinion from a physician not associated with the same practice.
- When a second (or third) opinion has been obtained by the Medicaid patient, any one of the Medicaid-participating physicians involved in the case may perform the specific surgical operation; or the case shall be closed at the end of the 120-day limit for that case.
- The use of existing laboratory data by the second (or third) opinion physician is necessary in every case where it is possible to form an intelligent surgical opinion based upon the existing diagnostic materials.
- To receive Medicaid reimbursement, the physician performing one of the specified surgeries and the hospital or other facility providing direct patient care for the surgery shall attach a Missouri Medicaid Second Opinion form to their claims. The Second Opinion form must be properly completed by the attending physician, the physician(s) performing the second (and third) opinion(s) and the surgeon. It is the surgeon's responsibility to furnish the hospital or ambulatory surgical center with a copy of the completed Second Opinion form.

Physicians list headaches

Physicians ranked the following business activities as the leading causes of problems — the worst first:

1. Insurance, including Medicare and Medicaid
2. Billing and collecting
3. Taxes
4. Conforming with various government regulations
5. Controlling overhead costs
6. Personnel administration
7. Retirement planning

Keogh participants can now double savings

Self-employed individuals will be able to double the amount they can contribute to Keogh retirement plans as of January 1, 1982. The amount that can be contributed will rise from $7,500 to $15,000 annually. The AMA was a leader in seeking passage of legislation to provide tax-deferred retirement plans for the self-employed.

Proposed rule outlines physician advertising

Content and methods of advertising by physicians licensed under the State Board of Registration for the Healing Arts are outlined in a proposed rule filed on the Missouri Register.

This proposed rule suggests that a physician who is licensed by the state board may publish or broadcast the following information in the geographical area(s) in which he resides, maintains offices or in which a significant part of his patients reside:

1) Name, including name of medical clinic, and names of professional associates;

2) Address;

3) Medical degrees awarded from the school of graduation;

4) Any American Medical Association recognized specialty and subspecialty;

5) Telephone numbers, including numbers for office exchange and home;

6) Hospital affiliations; and

7) Office hours.

Any of this information may be displayed on a clinic sign, letterhead, newspaper or telephone directory. Physicians may also advertise this information on television or radio provided that the commercial is performed by the physicians.

The rule also outlines display sizes. Clinics signs may not exceed four feet by three feet. Newspaper ads cannot be over two columns wide and three inches long.

Announcements concerning retirement, absence, illness, relocation, new office or death will be permissable as long as they are within the size restrictions.

Items of interest to Missouri physicians

MSMA members urged to become key contacts

The Committee on Political Affairs is urging MSMA members to become more involved in the medical political/legislative process by serving as "Key Contacts." These physicians are requested to contact their state representatives and senators on important issues affecting medicine.

Physicians who are personally acquainted with a legislator or who have a legislator as a patient are encouraged to become active in the program.

This fall the Committee on Political Affairs will be attending Councilor District meetings around the state to give physicians a better understanding of the "Key Contact" process. So far, the following meetings have been established: Oct. 21, in Kansas City; Oct. 26, in Springfield; and Oct. 27, in St. Louis.

If you are unable to attend one of these meetings and are interested in becoming a "Key Contact," contact the MSMA Office, P.O. Box 1028, Jefferson City, MO 65102.

Avis offers MSMA 40 percent discount

Effective November 1, 1981, Avis car rental will increase its discount to 40% on both personal and business travel.

On the new program, Missouri State Medical Association members can save on the following rentals:

1. New commercial rates with unlimited mileage plus a 10% discount when returned to the same city.
2. On rentals not eligible for the new commercial rates, Avis is offering a 40% discount on normal time and mileage rates.

When returning the car, Avis' computer system can ompare rates so that members can obtain the more conomical rate. Discounts do not apply to presold pecial rates.

Discounts are available by showing an Avis Identification Card, which members should receive within a month. On the back of the card, members should write he MSMA discount number, A/A877101 and bring it to he attention of the rental agent. MSMA members can lso show an Avis honored card, i.e., Master Card, Visa nd American Express, and give the discount number.

Assn. advises state on infant restraint materials

The Missouri Department of Public Safety and the Missouri Safety Council have asked the MSMA to assist them in choosing infant restraint films and educational materials. These items will be purchased for distribution to perinatal groups.

Assistant Executive Secretary C.C. Swarens will be meeting with the groups and discussing plans for support of legislation requiring the use of infant restraint systems for children four years and younger.

Component society officers meet November 1

On November 7, the MSMA Component Society Officers will conduct their first meeting in three years. Following the morning MSMA Communications Seminar, the officers will remain at the Hilton Inn in Columbia for a 1:30 p.m. meeting.

MSMA President E.T. Hansbrough, M.D., President-Elect John I. Matthews, M.D., Immediate Past-President Richard V. Bradley, M.D., plus staff executives and lobbyists will update officers on state and national health-related issues. Topics will include PSRO, HSAs, block grants for health services, state and national legislation, dues structures and memberships.

Rush award given to Dr. Charles Wheeler

Charles B. Wheeler, Jr., M.D., of Kansas City, has been selected as the recipient of the Doctor Benjamin Rush Bicentennial Award for Citizenship and Community Service. The award is presented to a physician for his outstanding community contribution in citizenship and public service.

The award will be presented during the opening ceremony of the American Medical Association's Interim Meeting of the House of Delegates, December 6, in the Pavilion of the Las Vegas Hilton. The award consists of a commemorative plaque and a $2,500 stipend.

MSMA Committee on the Impaired Physician
Confidential 24-hour Recorded Message Telephone Number
314-636-5744

I.C. System, Inc. shows collection recovery

There are more than 1,000 Missouri State Medical Association members enrolled in the collection service provided by I.C. System, Inc., who have recovered thousands of dollars in past-due accounts. I.C. System has been approved by MSMA.

In Poplar Bluff, a member recovered $42,500. In Independence, a member collected $32,683 and one in St. Louis got back $30,668. Another St. Louis member recovered $26,136 and one in Troy collected $18,782.

Nationally, the company collected an all-time record of $46.9 million during 1980. Close to 1,000 associations, including 27 medical associations, across the country now endorse the service for their members.

Collections are guaranteed to return at least eight times the initial cost of the service. At the same time, the creditor retains full control and is the only one who can make adjustments, accept partial payments or forgive a debt entirely if such course of action seems appropriate.

The company has been in active operation since 1938. During the 1960s, growth outstripped existing systems, necessitating adoption of more modern methods of doing business. All this culminated in 1975 with construction of a new centralized information center in St. Paul, Minn. Customer service specialists having the latest on-line computer equipment available can handle all customer inquiries on a "right now" basis.

Members enrolled in the program can write or phon the information center direct via toll free line.

To learn more about how the service can help you simply contact I.C. Systems at 800-328-9595.

MSMA members try radio, TV interviews at workshop, Nov. 7

Registration is still open for the MSMA communications training seminar set for 9 a.m.-12:30 p.m., November 7, at the Hilton Inn in Columbia. All interested MSMA members and auxiliary members are invited.

Improving electronic media communications skills will be the focus of the workshop. Burroughs-Wellcome Co. will lead participants through discussions and actual radio and television interviews. In addition, Burroughs-Wellcome is working with the MSMA to arrange talk show interviews with physicians in several areas of the state.

Following the training seminar there will be a meeting of the component society officers.

To register for the workshop, fill out the accompanying form and mail it to: MSMA, P.O. Box 1028, Jefferson City 65102. There is a $5 charge for lunch.

AMA publishes directory of medical education courses

Some 8,128 continuing medical education course under 49 different subject headings are contained i the 27th annual list published by the American Medi cal Association.

Physicians can consult the list and find course which meet their educational needs anywhere in th country and plan their individual programs accord ingly.

Formally organized Continuing Medical Educatio (CME) has gained wide acceptance among America physicians in the past two decades. The MSMA ha been granted authority by the Accreditation Counci for Continuing Medical Education to accredit CME pro grams offered by institutions and organizations i Missouri.

The MSMA and AMA strongly encourage ever physician to participate in CME. The annual list o CME courses is but one of organized medicine's ac tivities which promote voluntary participation in CM

The AMA also established the Physician's Recogni tion Award Program (PRA) in 1968, which recognize physicians' CME accomplishments in various categ ries of CME. The MSMA serves as a collection agency i recording and tabulating CME hours earned b Missouri physicians.

Requests for copies of the course list may be directe to the AMA Department of Continuing Medical Evalua tion, 535 North Dearborn St., Chicago, Illinois 60610.

Membership certificates available to MSMA members

The Missouri State Medical Association recently developed certificates of membership for MSMA members in good standing. The parchment certificates are suitable for framing and provide and excellent way to inform your patients of your membership in the Association.

If you would like to request a certificate, please contact the MSMA office, P.O. Box 1028, Jefferson City, Missouri 65102.

I am interested in attending the Communications Training Seminar, Saturday, November 7, 1981, at the Hilton In in Columbia.

Name ______________________________

Address ______________________________

Telephone ______________________________ Check enclosed for $5 ______________

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Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response. The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympothomimetics. Ru-Tuss Tablets are contraindicated in children under 12 years of age and in potients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated.

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be wamed of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers.

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those potients with glaucoma, or urinary bladder neck obstruction. Caution should be exercised when Ru-Tuss Tablets are given to potients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the potient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication. In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, constipotion, epigastric distress, hyperirritability, nervousness, dizziness and insomnia Large overdoses may cause tachypnea delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

COUGH

RU-TUSS® EXPECTORAN

DESCRIPTION

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	mg
Phenylproponolamine Hydrochloride	mg
Pheniramine Maleate	mg
Pyrilamine Maleate	mg
Ammonium Chloride	m
Alcohol	5

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestc and expectorant preporation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic upper respiratory congestion associated with pharyngitis, tracheitis, bronchi allergic rhinitis. Also, for the temporary relief of symptoms associated with ha allergies, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity ta antihistamines Concomitant use of hypertensive or antidepressant drug containing a monoamine oxidase inhi contraindicated

Ru-Tuss Expectorant is contraindicated in potients with glaucama, bronchial and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the should be warned of the potential that this drug may be habit forming Ru-Tuss torant may cause drowsiness Patients should be warned of the possible additiv caused by taking antihistamines with alcohol, hypnotics, sedatives and tranq

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor or operating dangerous machinery (See Warnings). Caution should be taken tients having hypertension, diabetes, hyperthyroidism and cardiovasculor dis Caution should also be used in potients with pulmonary, hepotic or renal insuff

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DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonfuls 24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to 3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as direc a physician.

HOW SUPPLIED

Pint bottles (16 fl oz)	NDC 0524-1

Federal law prohibits dispensing without prescription

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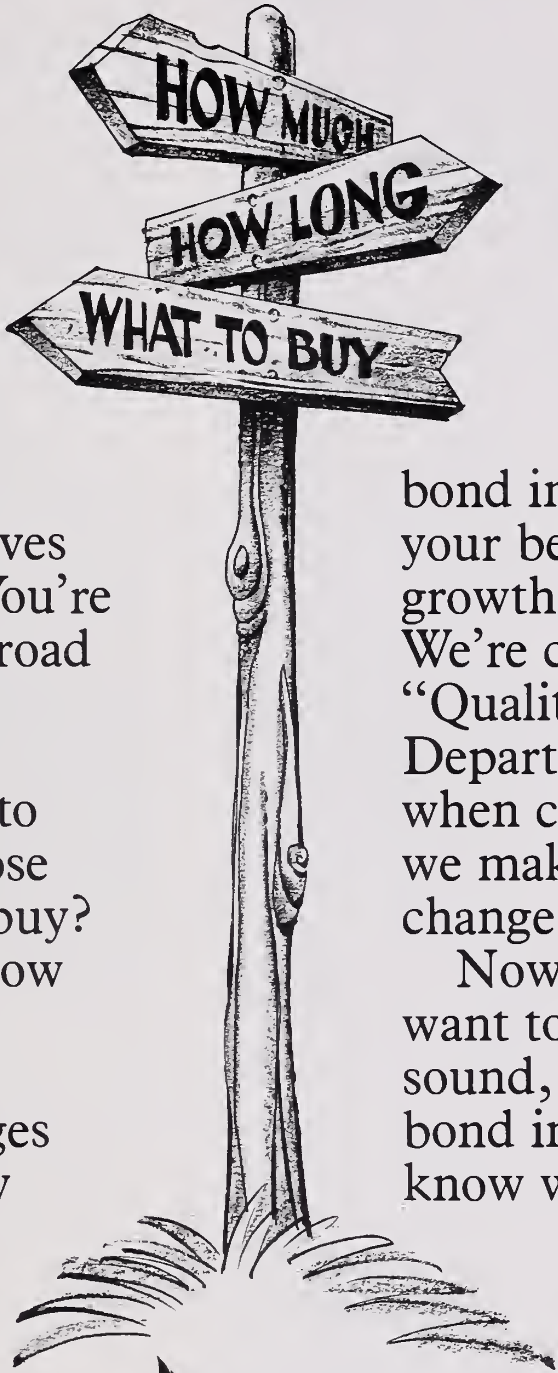

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In addition, in view of *The Copyright Revision Act of 1976*, effective Jan. 1, 1978, transmittal letters to the editor should contain the following language: "In consideration of the Missouri State Medical Association's taking action in reviewing and editing my submission, the author(s) undersigned hereby transfers, assigns or otherwise conveys all copyright ownership to the MSMA in the event that such work is published by the MSMA." We regret that transmittal letters not containing the foregoing language signed by *all* authors of the submission will necessitate delay in review of the manuscript.

Manuscripts should be typewritten, double spaced, and the original with one carbon copy submitted. Retain another carbon copy for proofreading. Used manuscripts are not returned. School and hospital appointments of the author should accompany the manuscript. It is desirable that a synopsis-abstract of approximately 135 words accompany the manuscript.

References should be cited in numerical order in the text and arranged at the end of the article in the same order in which they are cited. The reference should give name of author, title of article, name of periodical, volume number, initial page number and year. Authors are responsible for reference accuracy.

Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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All material other than scientific should be received prior to the first of the month preceding month of publication.

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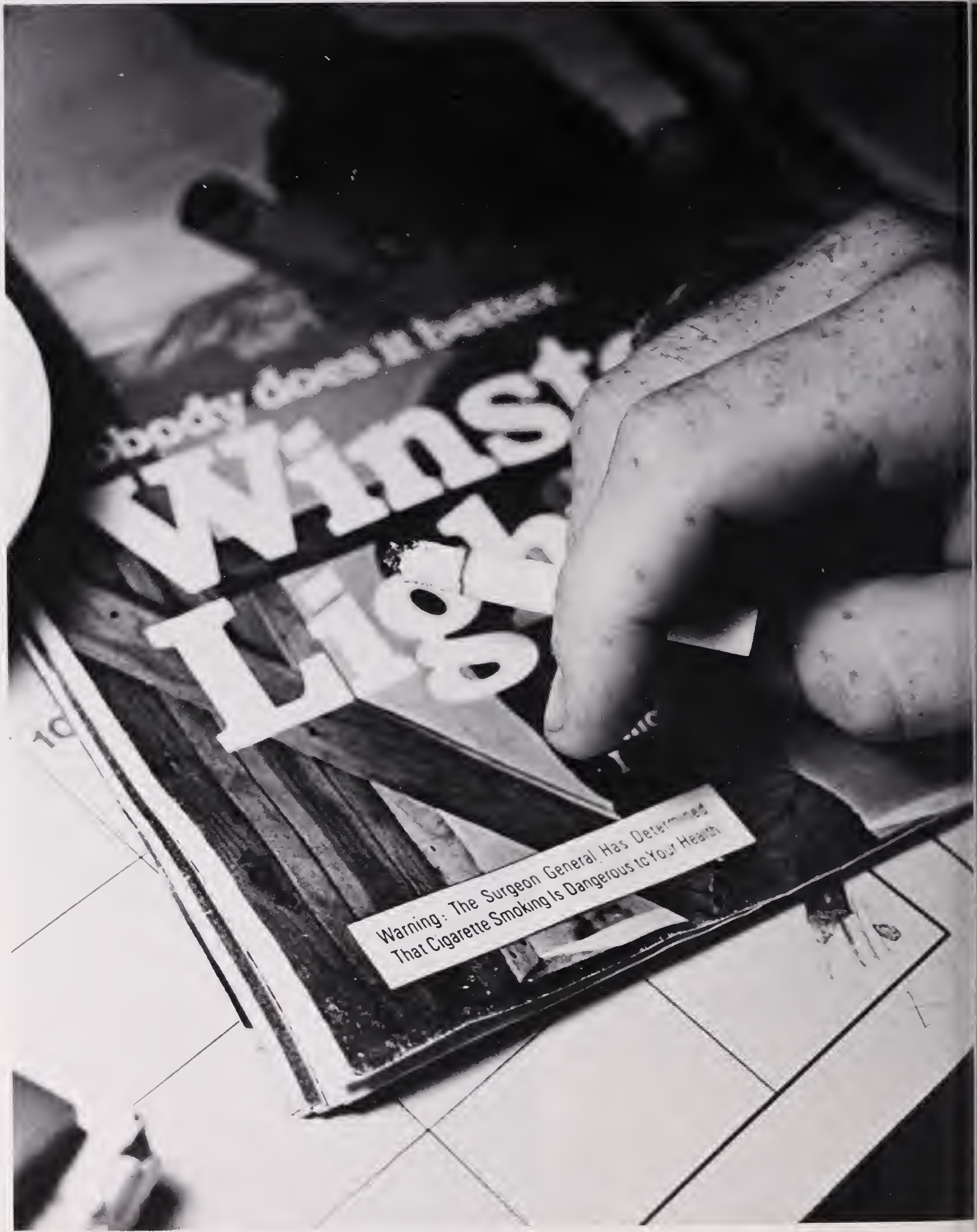
Photo-Comment by James W. Clawson, M.D., Springf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Knowledge without incentive is no deterrent!

Editor's Corner

ENOUGH IS ENOUGH!

The issue of *Time Magazine*, June 1, 1981 was amazing. The front cover was devoted to "Heart Attacks, New Insights, New Treatments" in large letters together with a schematic picture of a heart. Page 52 began an excellent seven-page article which dealt with the causes and incidence of heart disease, diagnostic procedures, newer medications and surgical treatments now available. The index of that issue on page 4 stated, "Armed with new techniques and potent drugs, doctors are taming heart disease, the nation's No. 1 killer. To help the trend, Americans should stop smoking, eat less rich food and exercise regularly."

Wonderful! Journalism at its best!

Now, let's look at the remainder of that issue:

(1) Immediately behind that front cover was a *six-page foldout* extolling Vantage cigarettes.
(2) Page 21 was devoted entirely to Belair cigarettes (a curious misnomer, in itself).
(3) All of pages 72 and 73 praised Marlboros.
(4) The back cover maintained that "This is your world. Nobody does it better than Winston Lights."

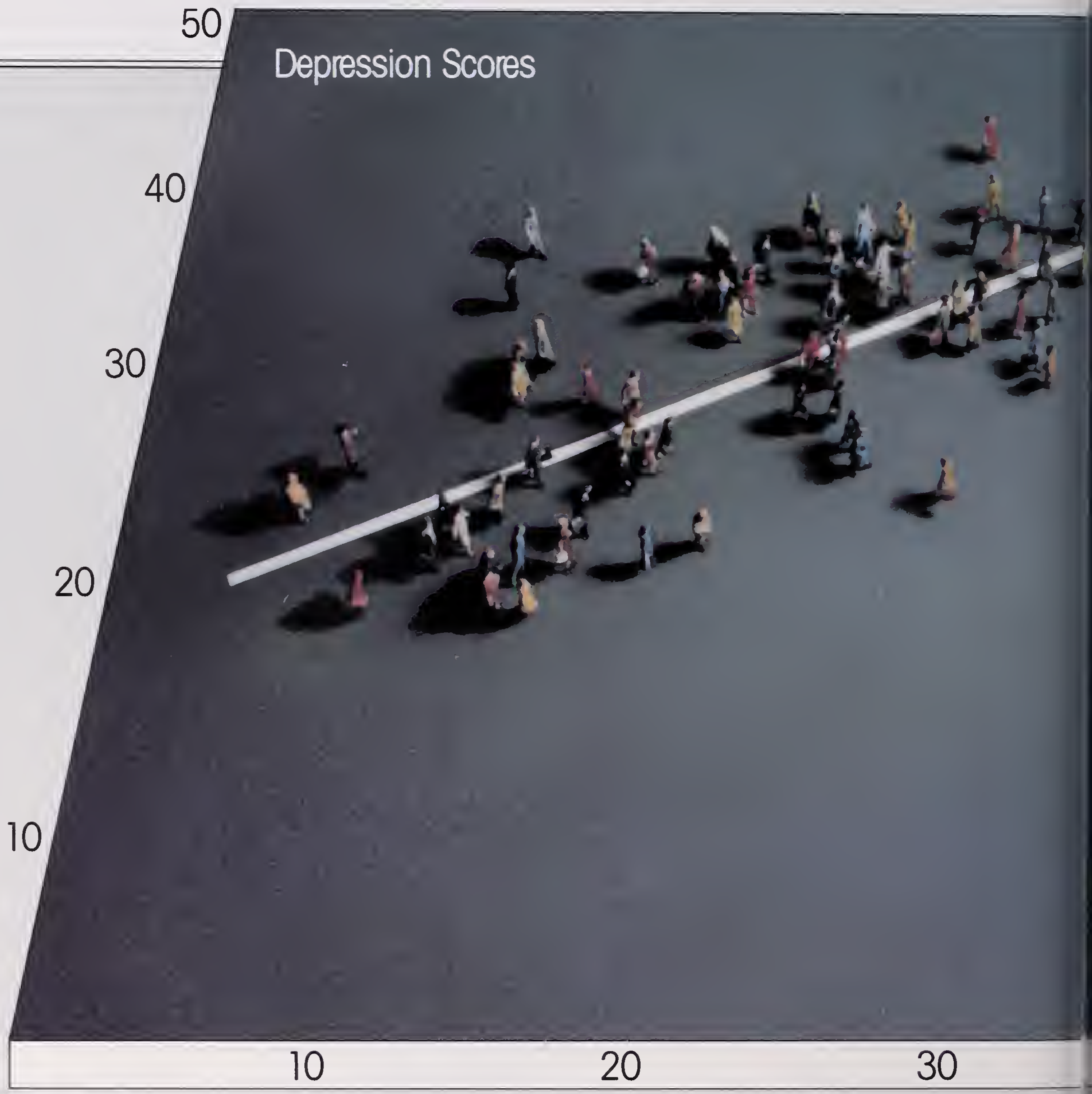
Now, really! This is just too much.

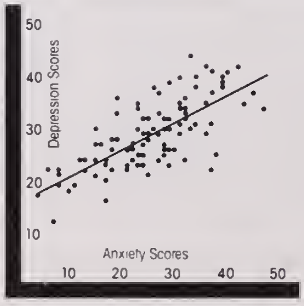
Curiously, the lead article on page 12 of that same issue dealt with a *Time* national poll and the conservative national swing. As an answer to one of the questions the responders stated, 60% to 37%, that "the media reflect a permissive and immoral set of values."

And they put prostitutes in jail!

Wilfred E. Wooldridge, M.D.

FOR THE 7 OF 10 NONPSYCHOTI



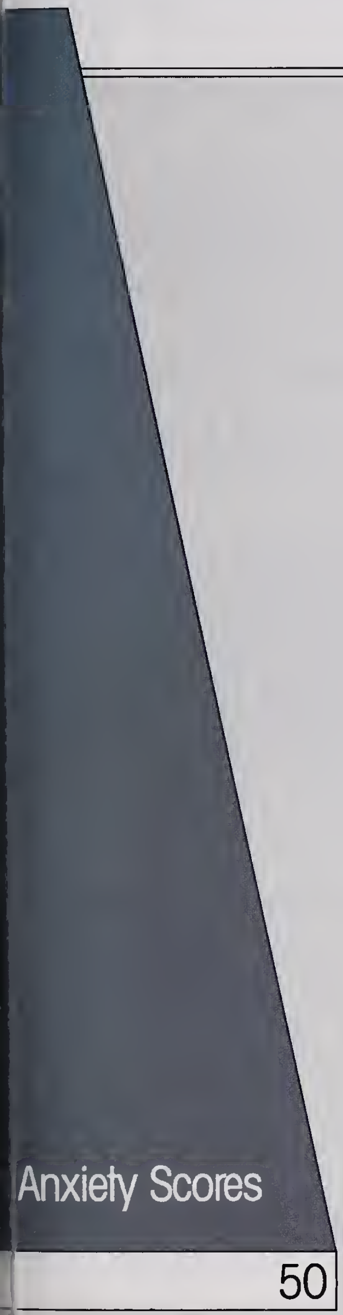


Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3] Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

EPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]



Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

References: **1.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35:*1359-1365, 1978. **3.** Claghorn J: The anxiety-depression syndrome. *Psychosomatics 11:*438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137:*1163-1172, 1980. **5.** Feighner JP *et al:* A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61:*217-225, 1979.

In moderate depression and anxiety

Limbitrol® Ⓒ IV

Tablets 5-12.5 each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
Tablets 10-25 each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt)

Relief without a phenothiazine

Please see summary of product information on next page.

LIMBITROL® TABLETS Tranquilizer–Antidepressant
Before prescribing, please consult complete product information, a summary of which follows:

Indications: Relief of moderate to severe depression associated with moderate to severe anxiety

Contraindications: Known hypersensitivity to benzodiazepines or tricyclic antidepressants Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use, then initiate cautiously gradually increasing dosage until optimal response is achieved Contraindicated during acute recovery phase following myocardial infarction

Warnings: Use with great care in patients with history of urinary retention or angle-closure glaucoma Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses Myocardial infarction and stroke reported with use of this class of drugs) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e g operating machinery, driving)

***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Since physical and psychological dependence to chlordiazepoxide have been reported rarely use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage, withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline, symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide)

Precautions: Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients Periodic liver function tests and blood counts are recommended during prolonged treatment Amitriptyline component may block action of guanethidine or similar antihypertensives Concomitant use with other psychotropic drugs has not been evaluated sedative effects may be additive Discontinue several days before surgery Limit concomitant administration of ECT to essential treatment See Warnings for precautions about pregnancy Limbitrol should not be taken during the nursing period Not recommended in children under 12

In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects

Adverse Reactions: Most frequently reported are those associated with either component alone drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely

The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs

Cardiovascular Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke

Psychiatric Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido

Neurologic Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns

Anticholinergic Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract

Allergic Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus

Hematologic Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia

Gastrointestinal Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue

Endocrine Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels

Other Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling

Overdosage: Immediately hospitalize patient suspected of having taken an overdose Treatment is symptomatic and supportive I V administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning See complete product information for manifestation and treatment

Dosage: Individualize according to symptom severity and patient response Reduce to smallest effective dosage when satisfactory response is obtained Larger portion of daily dose may be taken at bedtime Single h s dose may suffice for some patients Lower dosages are recommended for the elderly Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required Limbitrol 5-12 5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses

How Supplied: White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12 5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500, Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10, Prescription Paks of 50

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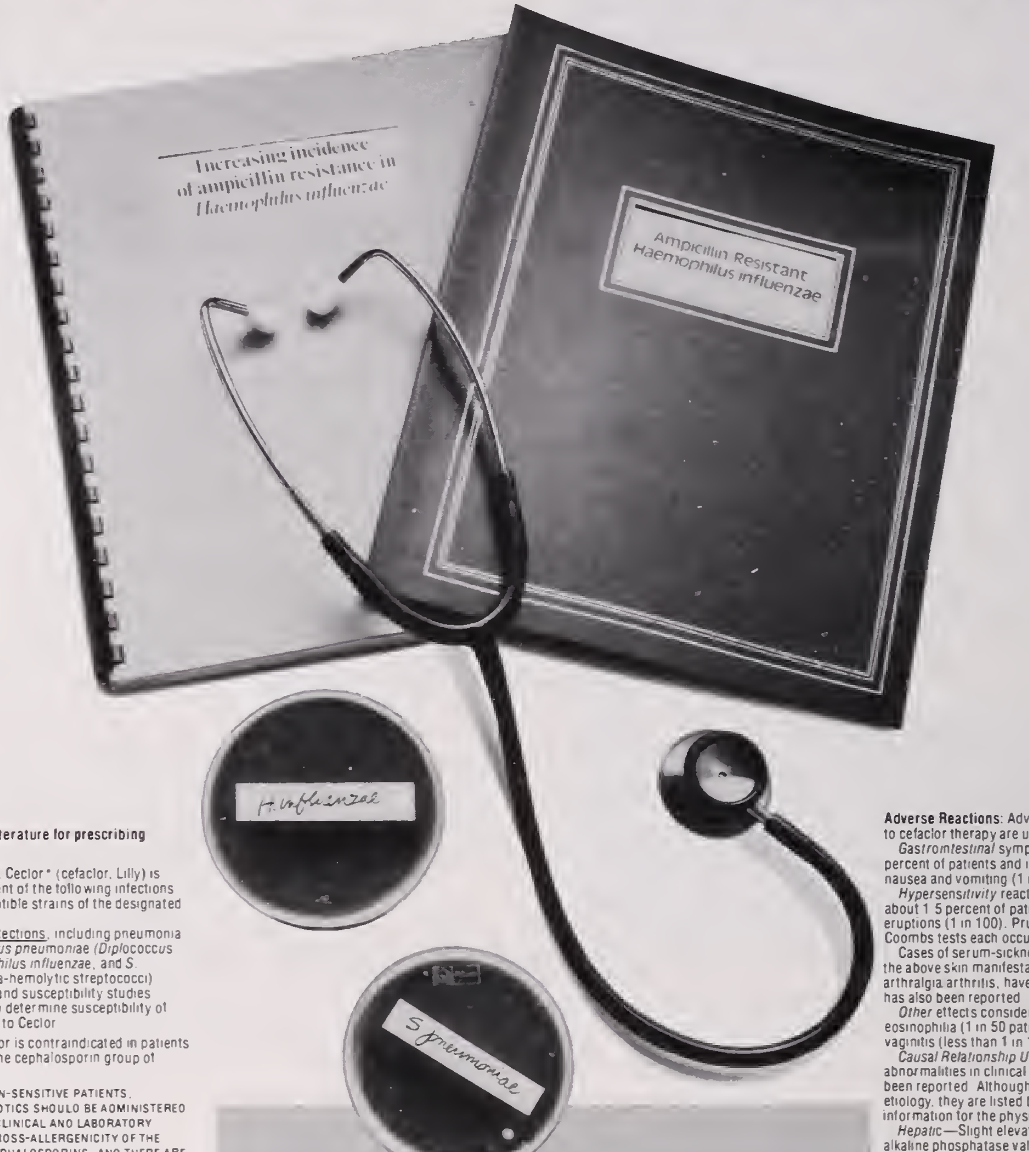
An added complication... in the treatment of bacterial bronchitis


Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

Brief Summary.
Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE)

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy particularly to drugs.

Precautions: If an allergic reaction to cefaclor occurs, the drug should be discontinued and, if necessary, the patient should be treated with appropriate agents, e g , pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms Careful observation of the patient is essential If superinfection occurs during therapy, appropriate measures should be taken

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug

Ceclor should be administered with caution in the presence of markedly impaired renal function Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP Lilly)

Usage in Pregnancy—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus

Usage in Infancy—Safety of this product for use in infants less than one month of age has not been established

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered relate to cefaclor therapy are uncommon and are listed belo

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

Hypersensitivity reactions have been reported in about 1 5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patient

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy include eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103cec

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S pneumoniae* or *H influenzae*.[8]

Note: Ceclor® (cefaclor) is contraindicated in patient with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatme and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information.

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Additional information available the profession on request from Eli Lilly and Company.
Indianapolis, Indiana 46285

Eli Lilly Industries, Inc.
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Special Article

Requiem for a Frontier Physician

James W. Parker, M.D., Doctor to the Wagon Trains and Mountaineers of Old Westport

By
W. A. STRICKLAND, JR., Ph.D., *Kansas City*

REMEMBRANCE is due to those persons who, in their daily lives, played roles in and contrib-ted to great events. Such is the case of Dr. James . Parker (1822-1907) (Fig. 1). He was a busy hysician in Westport between 1851 and 1863 hen the westward migration passed along West-ort Road, across Mill Creek and beyond the U.S. order (then the Kansas Territory line) to the reat west along the Oregon Trail, the Santa Fe rail and other routes.[1, 2]

Other cities may claim the title of "Gateway to he West," but it is beyond question that West-ort was the back door of civilization and the umping off place during those vital years. The ventual success or failure of migrants often de-ended upon the state of health, the quality of agons and the strength of the drawing stock xen or horses). The people of Westport, who rved the needs of the migrants in such capaci-es as blacksmiths, wagon makers, merchants, octors, druggists, gunsmiths, etc. were crucial preparing the travelers for their coming onths of travel.

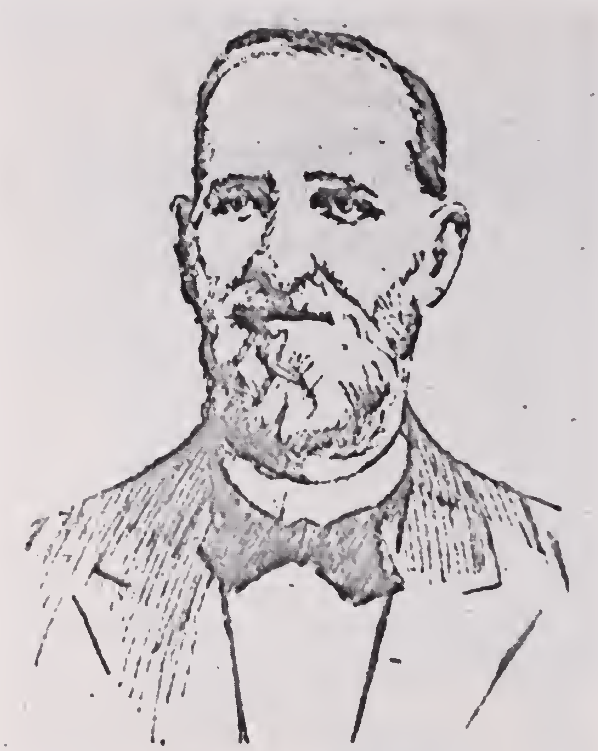
The westward migration between the years 848 and 1860 is a saga unique in human history. hese tens of thousands of people (perhaps a total 160,000) were motivated not by fear or ersecution but rather by the promise of a better ture. They formed the foundation of the present day United States west of Missouri.

History records that about one of ten persons who left Missouri for the westward trails died before reaching their destination. Disease, injuries and other misfortunes were deterrents far more formidable than Indians, terrain and adverse weather. Malaria, typhoid fever, smallpox, cholera, venereal disease, childbirth, diarrhea, scurvy, pneumonia, accidents and infections resulting from injuries were common causes of illness and death.

Several physicians practiced in Westport during this active migration period. Among the more prominent were Dr. J. O. Boggs, Dr. H. F. Hereford, Dr. Joel T. Morris and Dr. James W.

It is the belief of the author that our history is important since it provides a mark to align the present with our probable future. He encountered the records referred to in this article while researching the drugs used during the westward migration through Westport and the druggists and physicians of that time.

Dr. Strickland is Professor of Pharmacy and Medicine, University of Missouri-Kansas City School of Pharmacy.



DR. J. W PARKER

Fig. 1

Parker.[3] The account records of Dr. Parker have been preserved and are available for reference study in the Missouri Valley Room of the Kansas City Public Library. These records include cursory abbreviated notes and also served as the medical records of his patients.[4] Consequently, the records offer primary-document insight into many medically related situations of the citizens of old Westport.

Dr. Parker was born in Kentucky, near Lexington, in 1822. He was reared in a well-educated family and achieved a high level of education, completing studies in both liberal arts and in medicine at Transylvania University, Lexington, Ky. in 1846. His spirit of adventure was fired by accounts of the great west. He served in the U.S. Army as a military surgeon during the Mexican War in 1846-47. In 1850, he crossed the plains and mountains to California and returned in 1851 to Westport where he began practicing medicine. His obituary indicates that he formed an alliance with Dr. J. O. Boggs, a druggist-physician of Westport, as he began his practice. The first patient shown in his account book was a James Harrison whom he treated on Aug. 16, 1851.

In April, 1853, he went to Bullitt County, Ky. to marry Elizabeth R. "Lizzie" Burdette (b. 1832), a native of that county. He brought h
bride by steamboat to the Kansas (City) Landin
and overland for five miles to Westport.[5] The
first home was in the Richter House at 4217 Mi
Creek Parkway. This large house, which wa
razed in about 1913, served as the apartmen
house in Westport for many decades.

Soon thereafter, Dr. Parker bought a house
557 Westport Avenue just west of the bridge ove
Mill Creek. The exact date of purchase is obscur
perhaps the most authoritative information
found in the writings of Katherine Jones Moor
granddaughter of James G. Hamilton, who bui
the house.[6] She wrote:

> "The house was built (by J. G. Hamilto
> completed in 1847) at a total cost of $1,410 an
> was sold Dec. 1853 to Dr. Parker for $1,50
> Although the dates don't coincide, this eviden
> ly was the house referred to in an article in
> Kansas City newspaper, probably during th
> 'Old Trails Celebration' in 1912:
>
> "Adjoining a lumber yard at 557 Westpo
> Avenue stands a house that was spoken of a
> 'elegant' in the bygone days when plainsme
> and traders flourished. Now it has fallen int
> such a state of decay that soon it will hav
> become a memory. The house was built in 185
> by James Hamilton, a leading merchant an
> trader of this day. Like the majority of the ol
> Westport houses, it is constructed of walnu
> logs covered with weather boarding. The hous
> was sold in 1856 to Dr. J. W. Parker whos
> dignified dress and deportment were muc
> commented upon in those days. . . . "

Dr. Parker soon built up a large medical prac
tice. He traveled as far as 50 miles to make a hous
call on horseback (or mule) and, on one occasion
as far as 300 miles. His patients ranged from th
poor and unknown to the wealthy and famous. H
cared for Indians, Mexicans, slaves, assorted mi
grants and travelers and citizens of the town an
region. His records reveal that he served as th
"company doctor" for trading companies an
wagon trains and treated several different peopl
over a period of many months under accoun
headings of such famous names as Waddell
Vasques, William Bent, Bernard and others.

Dr. Parker maintained an office in a front roo
of the house he occupied in Westport except for
short period starting in 1854. A notation in h
handwriting and dated Oct. 7, 1854 state
"Moved office to A. G. Boone's Store." Ap
parently, he moved his office to the second flo

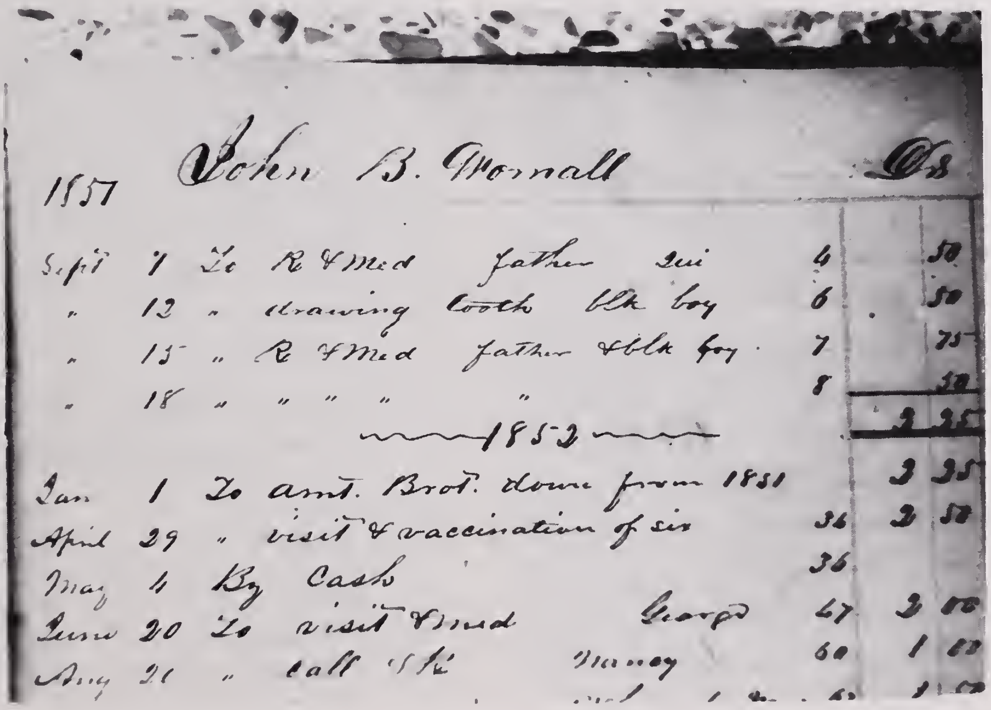
f the store building of Mr. Boone (a grandson of he famous Daniel Boone) that still stands on the orthwest corner of Pennsylvania and Westport oad. The building currently houses Kelly's Bar. his arrangement must have been short-lived for y 1856, his office was again in his home. The ollowing announcement was found in all the 1858 ublications of *The Westport Border Star*, which rved as the local Westport newspaper for sever- l years:

> **DR. J. W. PARKER**
> **Westport, Mo.**
>
> Office at his residence, Main Street, beyond the bridge, where he may be seen at all hours of the day and night, unless professionally absent.

His patients generally paid their medical bills. owever, his records indicate that a substantial umber did not, especially those among the Indi- ns and lower economic groups. He frequently cepted barter and noted these transactions in s account records. Eggs, butter, firewood, haul- g, "bundles of oats" and other items were taken lieu of money. His usual office fees were $1.00 $2.00. His fee for home visits ranged from .50 to $5.00, depending upon several factors cluding travel time and the period of "deten- n." He charged $7.00 to $10.00 for home delivery of a baby.

His account books contain a fascinating array of names of persons still remembered. Among the names are John B. Wornall, whose home on Wornall Road in Kansas City was a shelter and hospital during the Battle of Westport in 1864 (Fig. 2); Alexander Majors, a prominent Santa Fe trader and the founder of the famous Pony Express; John C. McCoy, the founder of the city of Westport; William Bent, the first white man to live in present-day Colorado — he built Bent's Fort on the Upper Arkansas River which served so prominently in the Santa Fe trade and settlement of the region; and James Bridger, the most famous of the Mountain Men and the legendary scout who lead the survey parties as they laid out the routes for highways and railroads across the Rockies (Fig. 3).

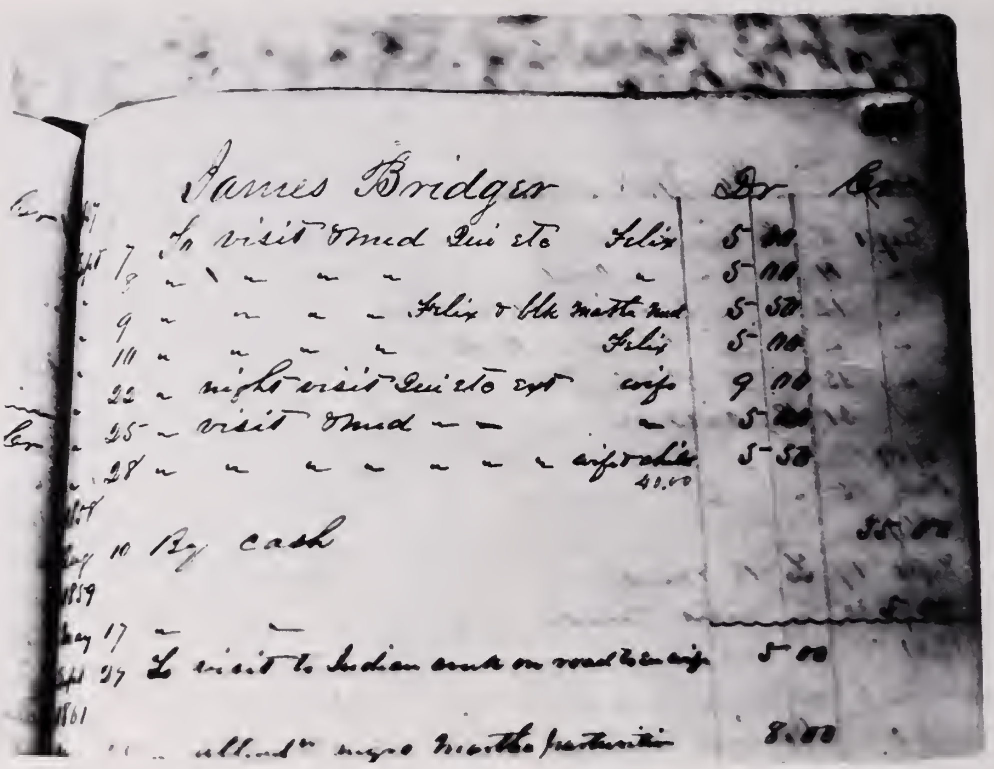
Dr. Parker practiced general medicine in the tradition of the period. He employed the then-common depletive practices of blood letting (cupping or venisection), purgatives and cathartics, and emetics. These procedures, commonly referred to as "bleeding, purging and puking" were based upon erroneous concepts that can be traced to Galen (138-201 A.D.). These concepts held that imbalance in body "humors" caused illness and these drastic procedures would correct such imbalances, thus promoting cures and healing. It must be remembered that this era was prior to the



1851 John B. Wornall Dr

Sept	7	To R & Med father [illegible]	4		50
"	12	" drawing tooth blk boy	6		50
"	15	" R & Med father & blk boy	7		75
"	18	" " " " "	8		50
				2	25
		1852			
Jan	1	To amt. Brot. down from 1851		2	25
April	29	" visit & vaccination of six	36	2	50
May	4	By Cash	36		
June	20	To visit & med George	47	2	00
Aug	21	" call & [illegible] Nancy	60	1	00

Fig. 2



James Bridger Dr Cr
To visit & med Qui etc Felix 5 00
7 – – – – – – 5 00
8 – – – – Felix & [illegible] 5 50
9 – – – – Felix 5 00
11 – night visit Qui etc ext wife 9 00
22 – visit & med – – – 5 00
25 – – – – – – – wife & child 5 50
28 40.00
1858
10 By cash 35 00
1859
17 – –
27 To visit to Indian [illegible] 5 00
1861
[illegible] 8.00

Fig. 3

rational knowledge of the microbial and biochemical origin of illness.

Dr. Parker delivered babies, set broken bones, sewed up cuts, pulled teeth and attended the injured and dying. Procedures found in his records include "To Syringe," which by context of use has been interpreted as catheterization to relieve the urinary retention common in prostatitis; "Cauterizing Throat," which is interpreted as painting the throat with a dilute solution of silver nitrate; and one instance of "Extracting an acorn from Seymon's nose." He vaccinated people, especially children, against smallpox by the method of Jenner, which was developed about 1800.

Dr. Parker dispensed the larger part of the medicinals he prescribed for his patients. In addition, he wrote some prescriptions to be filled at the two local drug stores. The medicinals he employed, as recorded in his account books, indicated a broad knowledge of the therapeutics of the period. He frequently used quinine, the "wonder" drug of the day. Quinine was essential to control the ague and fever — now called malaria. He used morphine, which was newly available and superior to the crude gum opium, to relieve pain and induce sleep. Some other drugs mentioned in his records are described as follows:

1. *Extract of Valerian* — Probably similar t Fluid extract of Valerian, formerly officia in the National Formulary. It was used as sedative in hysteria, insomnia and genera nervousness. It tasted terrible.
2. *Strong Iodine Solution* — Probably simila to Lugol's Solution, with 10% iodine.
3. *Cook's Pills* — While the composition o most proprietary preparations was secre and frequently changed, this pill was use for many years and may have been reasonably standard. Dr. John Sappington described Cook's R.A.C. Purgative Pills. These pills contained vegetable laxativ ingredients Rhubarb and Aloe, with Clov Oil; such a purgative pill was in commo use during the mid-1800s.
4. *Laudanum* — A solution of opium alkaloid in water and alcohol. This was properl known as Tincture of Opium and prepare from gum opium.
5. *Seidlitz Powders* — This medication wa named for the Seidlitz Springs of Ol "Bohemia" (now Czechoslovokia) althoug the composition was not similar to thi spring water. The powders actually consisted of two different powders, on wrapped in blue paper (sodium bicarbon-

ate and potassium-sodium tartrate) and the other wrapped in white paper (tartaric acid). The content of these two papers were mixed in a glass of water to yield an effervescent, slightly acidulous, pleasant drink. This solution was a mild saline laxative. Seidlitz Powders were the precursor of effervescent dosage forms as found in modern seltzers and carbonates which effervesce when placed in water. As an aside, this particular medicinal may be noted for its mildness in an era marked by harsh and often vile medications.

In addition to the drugs mentioned above, he commonly used the following types of therapy:

6. *Plasters* — These consisted of pieces of muslin or thick gauze, about 4 x 6 inches in size, on which a thick ointment had been uniformly spread. Usually, they were wetted briefly in warm water and applied to the skin with manual pressure so that they adhered for a few hours to a day or more. Most plasters were intended to cause a reddening of the skin (rubefacient activity). They contained such ingredients as mustard powder, camphor, menthol and other skin irritants. This widely used procedure was based upon the idea that the rush of blood created by this artificial inflammation would hasten the relief of muscular aches and pain and promote healing in the area.
7. *Bitter Tonics* — These were liquid medications for oral administration. They were prepared by many different formulas. A famous tonic was "Peruvian Bark Bitter Tonic" which contained quinine as the bitter principal derived from the cinchona bark of Peru. Invariably, these tonics contained a high proportion of alcohol. Bitter tonics were renowned as "good medicine," since they tasted so bad.
8. *Vermifuge* — Intestinal worms, especially round worms, were often found in both children and adults. A vermifuge is an agent used to expel intestinal worms. The exact preparation Dr. Parker used is not known with certainty and it is possible he changed preparations from time to time. However, the popular and effective vermifuges of the period always contained two ingredients which are well known. The first is Oil of Wormseed. The wormseed plant (Chenopodium ambrosioides) grows wild in almost all parts of eastern United States. This oil is a very effective vermifuge. However, it is no longer used in medicine because it has undesirable toxicities especially in children. The second common ingredient was a laxative, such as castor oil or rhubarb, intended to aid in expelling the worms.
9. *Cough Syrups* — The common colds and influenza with their associated symptoms were treated in a variety of ways as is still the case today. Cough syrups of the period contained sugar, honey, anise oil, tolu balsam, horehound extract, wild cherry bark, alcohol and other ingredients which are still found in cough syrups today.
10. *Other medications* — Dr. Parker employed many different medications for a variety of purposes other than the foregoing. Usually the medications were harsh and bad tasting.

In addition to his busy medical practice, Dr. Parker ventured into the trading business, especially the Santa Fe trade, on a regular basis. He was noted as one of the backers of the "Wind Wagon," a proposed invention whereby sails were attached to wagons to provide power for locomotion over the western trails.[2] While this fanciful scheme failed in practice at the time, it was resurrected a century later by Walt Disney and fabricated into a funny and successful movie.

The Civil War had a profound influence on Westport and the surrounding region. The numbers of migrants passing through Westport started to decline rapidly about 1859. The terrorism and murderous events in the area prompted many residents to go elsewhere, especially those with leanings toward the Southern cause. In September, 1863, Dr. Parker apparently left Westport in haste and went to Nebraska City, Neb. The date on which the last patient treated in Westport and found in his records is Thursday, Aug. 20, 1863 when, under the account of "Ed Price," he treated "Myra." The record indicates that this and many other charges in 1863 were never paid.

It is probable that Elizabeth stayed on in Westport for several months. She gave birth to a son, John William, in 1863. It can be presumed that she and the baby were incapable of traveling in the required mode. Then, on March 31, 1864, their third child, James L., aged 6 years, died and was subsequently buried in Union Cemetery. It is generally accepted as true that Elizabeth and the baby went to Nebraska to join her husband in mid-1864. Their house in Westport was purchased by a John C. Morris in 1866.[6]

When Elizabeth joined Dr. Parker in Nebraska City, they shared the numbing sorrow and despair of having seen their first three children die during childhood. This period of American history was marked by high mortality rates among the young. Almost 10% of the infants died at childbirth. Only about 50% of children reached ten years of age. The average life span then was about 40 years as compared to 70+ years at present.

Dr. Parker continued to practice medicine in Nebraska and also entered into business in trading companies that carried goods to the northwest part of the present United States. He became a junior partner in the drug firm of Price and Parker. In 1865, a fifth child, Peyton Burdette, was born, and on May 30, 1867, their sixth and last child, Mary Elizabeth (Daisy), was born. The Parkers were busy in business, social and Presbyterian Church affairs in Nebraska City.[5]

The aftermath of the Civil War saw Westport change from an exciting jumping off place to the great West and become a suburb city of the burgeoning metropolis of Kansas City. But "Lizzie" and James Parker could not forget. Finally in 1882, they moved back to Westport along with their three children. Dr. Parker practiced medicine until his retirement which was brought on by blindness in about 1900. He died on March 2, 1907 at this home, 305 Lawrence Street (formerly named Union Avenue), Kansas City, Mo.[1] He was buried in Union Cemetery in Kansas City in a burial plot which he had purchased on Nov. 6, 1862.[8] The sexton's record is specific about when and where he was buried. However, his grave is unmarked. He was survived by his wife and three children.

During the 85 years Dr. James W. Parker lived and practiced medicine, he witnessed and participated in an exciting and significant period of American history. He was a principal person in the history of old Westport. He deserves remembrance. RIP.

Acknowledgement: The author expresses appreciation to William A. Goff whose knowledge of old Westport was indespensable in the preparation of thi article and in assuring the accuracy of historical details.

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Acknowledgement. The author wishes to express appreciation to Mr. William A. Goff, whose knowledge of old Westport was indispensable in the preparation of this article and assures the accuracy of the historical details

> The reason people find it so hard to be happy is that they always see the past as better than it was, the present worse than it is and the future finer than it will be.
>
> —Marcel Pagnel

Chest Case of the Month

JAMES MALTBY, M.D., *Columbia*

Diffuse Small Nodular Disease in a 38-Year-Old Woman

Case Report

The patient, a 38-year-old white woman, entered the hospital with a history of shaking chills, fever, anorexia and myalgia for one month. For the previous two weeks, she also had noted severe dyspnea on exertion. She had been hospitalized elsewhere for two weeks prior to this admission without a diagnosis being established.

The purified protein derivative (PPD) at the other hospital was reported as negative. She received 500 mg of erythromycin four times daily and was discharged. Her past history was remarkable in that her mother died of tuberculosis and a myocardial infarct at age 38. Although the patient had no significant illness during the prior five years, she was aware that she had had an abnormal chest x-ray during this period of time.

Results of a physical examination were within normal limits except for a temperature of 103 degrees. The white blood cell count was 5,400 with a normal differential. Posteroanterior and lateral views of the chest (Fig. 1) showed a diffuse stippled infiltrate throughout both lung fields with several areas of linear streaking. Review of old films made five years before (Fig. 2) and three years before (Fig. 3) showed a progression of fine nodules and increased linear scarring between the five-year-old and three-year-old films but very little change in the appearance of the chest film in the past three years.

During her initial workup, three lumbar punctures were done. These showed normal spinal fluid protein; glucose values of 30, 22 and 8 mg/dl respectively; and white blood cell counts of 15, 18 and 30/cubic mm, most of which were monocytes. A liver biopsy showed noncaseating granulomata. Smears of sputum, liver and cerebrospinal fluid were negative for AFB and other bacteria. Pulmonary function tests showed moderate obstructive diseasebut, also, a diffusing capacity diminished to 58%. The PPD was negative for 5 tuberculin units (TU), but positive for 250TU. The control was positive.

In this report, the problem was to identify the progressive, relatively asymptomatic chest disease that preceded a fairly classic case of miliary tuberculosis.

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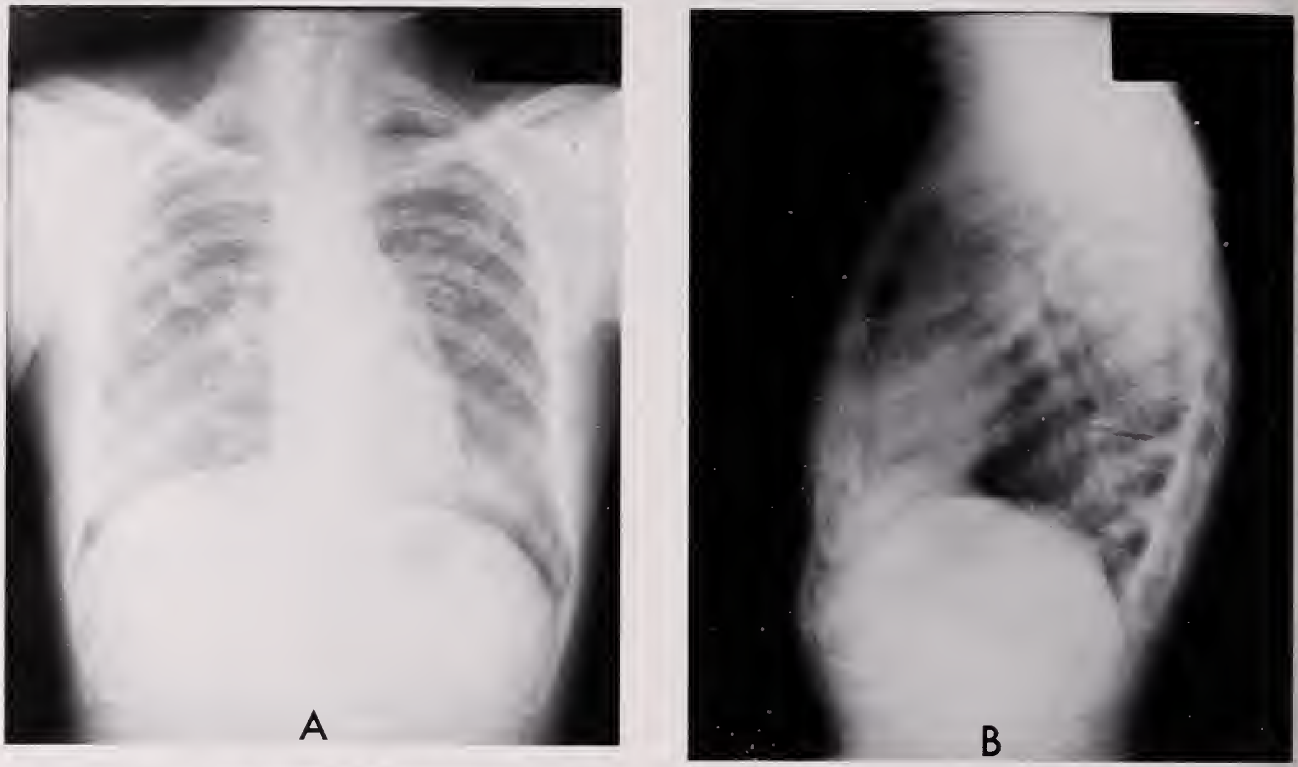
Because of a questioned spinal abnormality on an oral cholecystogram film and, also, because of questionable widening in the paravertebral region on the chest x-ray (Fig. 1), lateral tomograms were made of the thoracic and lumbar spine (Fig. 4). Multiple lytic areas extended on both sides of several intervertebral discs with marked narrowing of the involved disc space. An operation was performed with drainage of an abscess from T7 through T9. The left sixth rib was removed and an open lung biopsy was performed. The sixth rib was used for bone grafts to fuse T7 through T9.

Lung tissue and the vertebral abscesses were positive for acid fast bacilli. The lung tissue showed both caseating and noncaseating granulomata. The patient was given Isoniazid (INH), rifampin and ethambutal. Except for local problems related to her back surgery, the patient has remained relatively asymptomatic for two years. She has remained afebrile since the commencement of triple drug therapy. Results of her chest x-ray remain essentially unchanged.

Discussion

The patient's acute hospital illness was a fairly classic case of miliary tuberculosis. The problem is to identify the progressive, relatively asymptomatic chest disease which preceded it for five years.

In the literature, almost every known disease has been associated with a pattern of fine nodular densities.[1] Ornstein[2] in 1931 classified tuberculosis into four basic groups: exudative, caseous



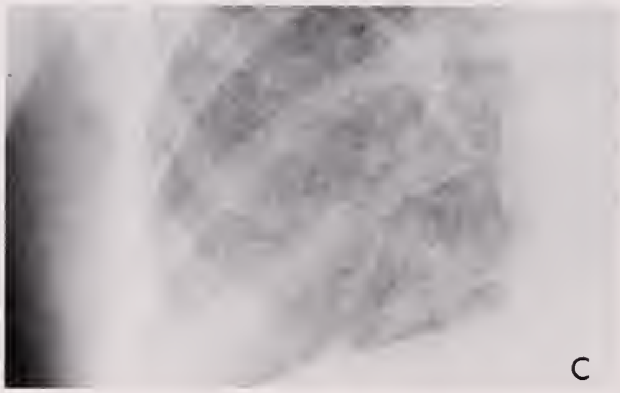


Fig. 1 (*A* & *B*) PA and lateral views of chest on admission show diffuse reticulonodular infiltrate throughout both lung fields. (*C*) Close-up of right lower lung field shows a diffuse stippled or "miliary" mottling. Note slight irregularity of the right paraspinal area.

pneumonia, exudative-productive and chronic proliferative. The first three groups are symptomatic and the fourth is asymptomatic. He described three cases of small nodular lesions "browsing through the lungs" for periods of as long as five years. He ascribed the "chronic proliferative" type as probably due to superinfecting doses of tuberculosis in relatively nonallergic tissues.

In 1955,[3] Buechner and Anderson described five more cases of slowly progressive, miliary appearing tuberculosis in asymptomatic patients. PPDs were weakly positive in these cases and sputums were intermittently positive for AFB. They emphasized the decreasing awareness of this form of productive, slowly progressive tuberculosis in the modern antibiotic era.

Clinical flare-ups may occur with this type of tuberculosis with a conversion to the exudative form. Proudfoot *et al* observed 40 adults with disseminated tuberculosis in Edinburgh from 1954-1967.[4] Sixteen of these cases were described as "cryptic" as opposed to "overt." These "cryptic" cases had an insidious onset, with or without pyrexia, and they might not undermine the health of the individual until far advanced.

The other diagnosis for the asymptomatic phase of our patient is that of sarcoidosis. A series of 150 cases of sarcoid showed 43% with adenopathy alone, 41% with adenopathy and parenchymal infiltrates, and 16% with parenchymal infiltrates alone.[5] Eighty of the 95 patients with parenchymal abnormality had the reticulonodular variety similar to that of our patient. Kent et al[6] thoroughly investigated 30 cases of sarcoid, including open thoracotomy with lung, pleural and lymph node biopsy and found an organism in all cases. In 19 of those patients, the organism was Mycobacterium tuberculosis. Of those 19 patients, only six showed a positive PPD.

Probably, some of the most definitive work on

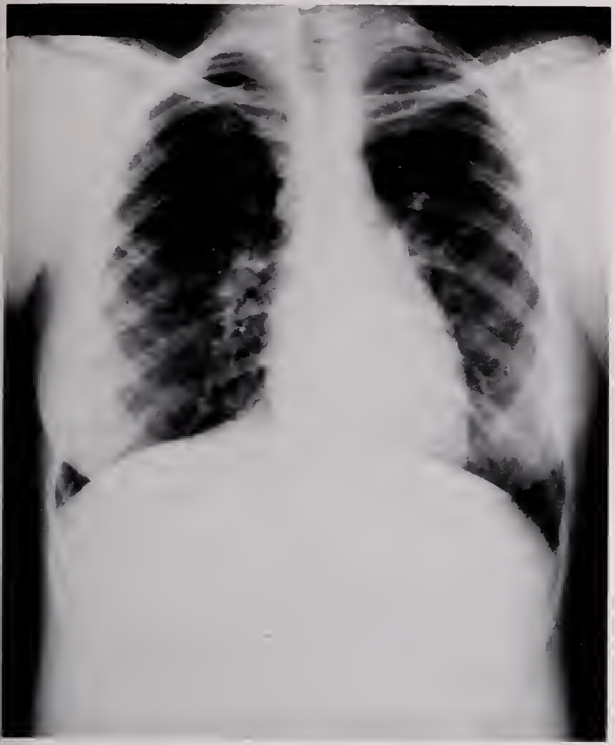


Fig. 2. PA film of the chest done five years prior to admission shows multiple small nodules measuring up to 3 mm scattered throughout both lung fields.

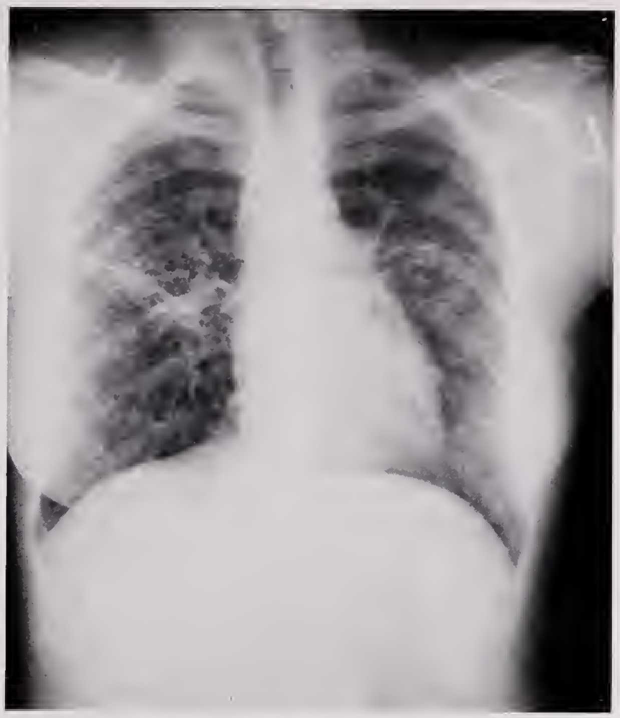


Fig. 3 PA film of the chest done three years prior to admission shows definite progression of the diffuse reticulonodular infiltrate throughout both lung fields. The patient was asymptomatic at the time and was lost to clinical follow-up for the next three years.

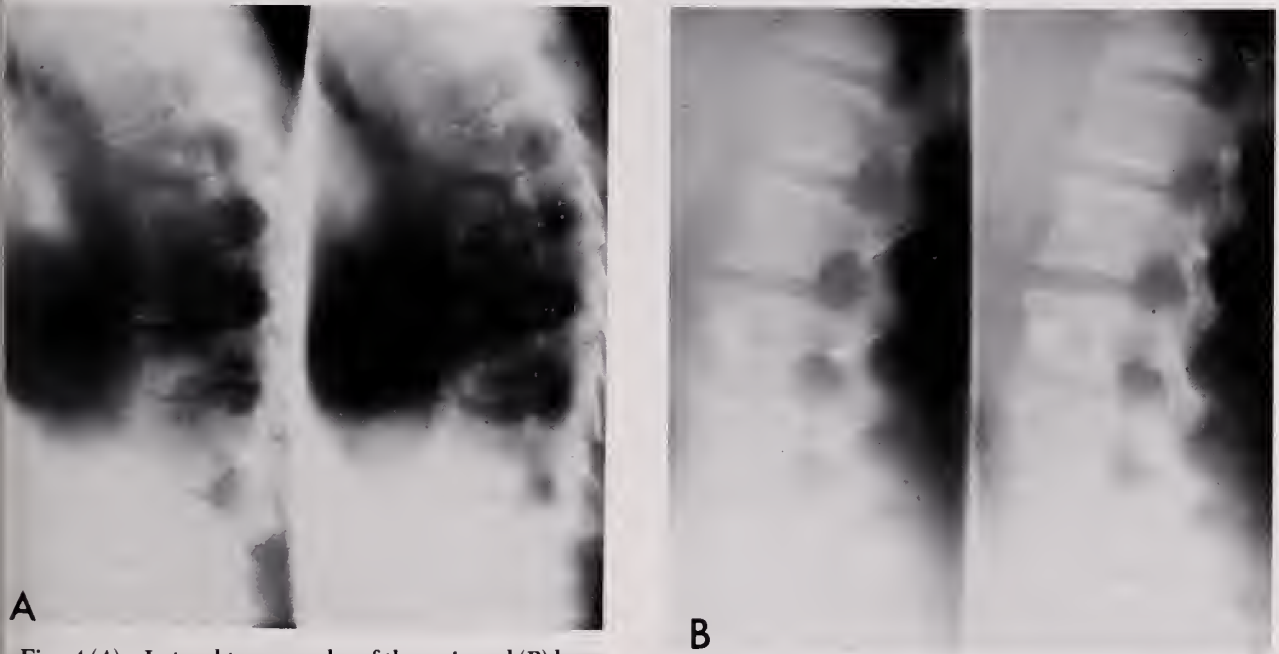


Fig. 4 (*A*) Lateral tomography of thoracic and (*B*) lumbar spine during present admission shows multiple areas of osteolytic bony destruction particularly at T7-T8, T10-T11, and L3-L4. Note how the process crosses the intervertebral disc spaces with narrowing of the disc space.

sarcoidosis has been done by Scadding in Great Britain.[7, 8] Of 275 patient cases of sarcoidosis 11.8% had calcific evidence of tuberculosis prior to the sarcoid episode; 5.4% had indubitable clinical tuberculosis prior to the sarcoidosis; 6.5% had

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DONALD J. JOSEPH, M.D., JAMES W. THELIN, Ph.D.
and DAVID BAKER, *Columbia*

Hearing Loss

Noise Induced: Current Concepts

An old riddle asked, "What comes with a carriage and goes with a carriage, is of no use to the carriage, and yet carriages cannot move without it?" The answer — noise. Webster defines noise as "unwanted" sound. This definition includes a value judgement and requires agreement among members of society as to what is *unwanted sound*. Rock and Roll music may be beautiful to the teenager and a horrible racket to the parents.

Noise has been with us since man roamed this earth. About 600 B.C. the Greeks banned metal work involving hammering within the city limits and also prohibited chariot racing in the streets after sundown. Pliny the Elder, in 50 A.D. noted that villagers who lived near the cataracts of the Nile appeared to have hearing losses.

It is not possible here to do more than touch upon the importance of the auditory sense. The sensibility to variations of sound, be they noises or not, penetrates deeper than the perceptions of any other sense. When we sleep, most of our senses are turned off, so the speak, but our ears are never turned off. The ear is the "eye of the mind." Infants already feel the modulations of the voice long before they can grasp the meaning of the spoken word. Their excitement abates when talked to gently, yet loud noises are one of their basic fears. The rhyme of the cradle song will lull an infant to sleep. Spirits of an army or nation in danger are revived by patriotic songs. Passangers of the Titanic went to their deaths singing "Near My God to Thee." In work and play, in joy and sorrow and from the cradle to the grave, man stands in the midst of his world in sound.

There is an increasing awareness of noise-induced hearing loss and its consequences in our society. Patients concerned about a possible hearing loss usually consult their physicians first. The purpose of this article is to provide information about noise-induced hearing loss and its symptoms, consequences and prevention.

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Helen Keller and others have attested to the fact that deafness has a much more tragic influence on the inner life than total blindness. Blindness keeps one from contact with "things" while deafness keeps one from contact with "people." The first effect of a decreased hearing faculty is a state of perpetual fear, manifesting itself in all sufferers regardless of rank or profession. This fear haunts the patient day and night and follows him like a shadow. It is the dread of total deafness and impending inferiority. The tremendous influence of chronic states of fear on all mental functions is well known today.

For a number of years the deaf try to keep their infirmity secret from all others. They take great pains to prevent discovery. Continuous misunderstanding has taught the sufferer that in our age of hurry and rapid change, there is no time for repetition; no time for long explanations. The hearing impaired are pushed aside and avoided, and the little world around them becomes narrower and narrower. Unable to hear their own voices, their speech is apt to become indistinct, too soft or too loud. This complicates conversation even more, and it is thus avoided as much as possible by the patient and those around him.

Society accepts the blind individual more readily than the deafened one. An income tax deduction is provided, seeing-eye dogs are often furnished, the man with the white cane is helped across the street, and he gets a free fishing license! The deafened one is often avoided and ridiculed. There are many jokes about the deaf but few about the blind. The "deaf and dumb" attitude of our ancestors toward the individual with impaired hearing has finally changed.

However, “deaf and dumb” is still listed in the International Classification of Diseases (ICD).[1]

According to a U.S. Public Health Survey in 1962, 8.4% of the adult population of the United States or approximately 14 million people have earing levels of 25dB or higher at audiometric requencies of 500, 1,000 and 2,000 Hertz.[2] In 1968, the Surgeon General of the Public Health ervice, Dr. William H. Stewart, said “calling oise a nuisance is like calling smog an inconvenience. Noise must be considered a hazard to the ealth of people everywhere.”[3]

One of the major environmental factors of our ime is noise. It adversely affects the quality of our ives and, more importantly, it is a major health roblem.

NOISE AND HEARING LOSS

Probably, the most serious consequence of oise exposure is its effect on hearing. The number of high level noise sources has increased harply in our generation, and potential harmful evels of noise are found in many cities and even n our rural areas. It is estimated that as many as 0 to 25 million people — about one in ten in the United States — are exposed to noise of duration nd intensity sufficient to cause a permanent reduction in their hearing ability.[4] Of these, 15 illion are estimated to be workers exposed to xcessive noise on the job. They include agricultural workers, construction workers, mine orkers and truck drivers, as well as factory orkers.[5]

A major factor in noise induced hearing loss NIHL) is that it occurs so gradually that considerable deterioration may occur before one is aware f damage. When the highly specialized hair cells n the cochlea are destroyed by excessive exposure to noise, they do not regenerate and cannot e repaired. Hearing aids do not restore noise nduced hearing loss although they can be of limited help to some.

CONTINUAL NOISE

Noise induced hearing loss is a gradual process ccurring over a period of years. The audiogram is haracterized by a high frequency sensorineural ss first affecting 4000 Hz and then extending to e middle and very high frequencies. The low equencies are the last to be affected, but eventually they are affected although usually to a lesser degree. Most of the hearing loss resulting from ouse by noise occurs during the first five to seven ears of exposure. Those with the best hearing, the young, manifest the greatest changes in hearing as a result of excessive noise.[6] The development of the hearing loss is insidious, and it eventually interferes with a person's ability to conduct his daily business. At this point the person who was previously oblivious to the hazards often overreacts and fears total deafness. The physician needs to assure him that total deafness does not occur, but that the loss will progress if precautions are not taken.

Rural areas are no longer quiet. The loud noise of tractors, combines, grinders, choppers, conveyors, grain dryers and chain saws are common and frequent occurrences. Many of these are of sufficient intensity and duration to damage hearing as well as create a nuisance.

High frequency noise often produces hearing loss where as low frequency noise is much less apt to do so. The most important point, of course, is the *length of exposure* and the *intensity of the noise*. The fact that more than 15 million Americans are working in industrial noise constitutes a major health problem.

IMPULSE NOISES

In addition to continuous noise, there are also *impulse noises* such as those produced by jackhammers and punch presses. These are not of sufficient intensity to “blow out the drum” as an explosion or shotgun blast next to the ear might do. However, they are much louder than ordinary, background factory noise. They, in combination with high level background noise, are particularly damaging, but the exact role of the impulse noise in NIHL has not been defined.

ACOUSTIC TRAUMA

Profound hearing loss may be produced by impulse noises such as an explosion or gunfire. When such a single incident occurs, it is called “acoustic trauma.” Acoustic trauma may be severe and produce a high or low frequency loss or a flat loss across the audiogram.

It was not until after World War II that the medical profession made any concentrated effort to study the relation of hearing loss to impulse noise exposure. The medical community still has not updated its terminology since the only reference to noise induced hearing loss in the ICD is “boilermaker's” deafness.[1]

NUISANCE NOISE

Noise outside of industrial areas also is a problem. Our smaller communities and neighborhoods and even our rural areas are plagued by noises that are not only obnoxious but also frequently harmful. A survey by the census bureau indicated that neighborhood noise was a more frequent complaint than crime.[7] This is a "nuisance" noise and sometimes is of intensity or duration to be injurious to hearing.

Nonauditory Effects of Noise

We all are aware that noise can and frequently does interfere with our everyday activities.

Most people find it difficult to fall asleep when an unusual or unsuspected noise is present. Many individuals especially the elderly are easily awakened by noises. The cumulative effect of loss of or interruption of sleep in those who reside near airports or busy highways has not been determined.

Noise is obviously a hindrance to communication. It may be of particular importance in industrial or rural situations in which safety may depend upon auditory warning signals. Interference in communication may also be a major problem in the area of education. Adults can miss a lot of what is said and still get the message. Children who are just beginning to learn language have much more difficulty understanding in the presence of noise. We have no real way to measure the affect of noice interference on the quality of our everyday activities in the home. Even people with normal hearing who live in noisy places tend to reduce their communication with others and avoid social interaction. They tend to simplify their communications, talk only when absolutely necessary and repeat themselves frequently. Even when communication with fellow workers is not necessary, excess noise seems to affect efficiency. Workers in noisy industries frequently complain of fatigue, loss of concentration, headaches and an inability to sleep.

No one really knows the extent to which excessive noise may affect our other body functions. Noise has been accused of causing cardiovascular disease, hypertension, peptic ulcers, altered metabolism of food substances and a number of other illnesses. Most of these untoward effects have been demonstrated with animal research, but much needs to be done in the area of human physiology.

We do know that noise stimulates the sympathetic portion of the autonomic nervous system and excessive noise is thought to be a major cause of stress. Noise induced physiological stress, indeed, may be a factor in many physiological functions. Anyone who has ever said, "That noise is driving me crazy," is aware of the fact that noice can affect our emotions. Violinists playing soft romantic music may elicit quite a different emotion than the football band playing the fight song. It may be that noise is just one of many stressful stimuli that affect our behavior. It should be minimized just as excessive heat, cold, obnoxious fumes and other existing annoyances.

The Federal Government and Noise

Several agencies of the federal government have become involved in dealing with noise as a health hazard. The National Institute of Occupational Safety and Health (NIOSH), under the Department of Health and Human Services, studies noise and hearing. It advises the Occupational Safety and Health Administration (OSHA) under the Department of Labor. OSHA develops and enforces appropriate standards. OSHA has been primarily concerned with noise exposure in industry. The Environmental Protection Agency, an independent agency, deals primarily with nonoccupational urban and suburban noise. EPA regulates noisy products such as large trucks, air compressors, motorcycles, etc.

Permissable Noise Exposure

The Occupational Safety and Health Administration has a standard for exposure to noise. Table 1 shows some common sources of noise and the intensity produced. OSHA specified a maximum permissible noise exposure level of 90 dBA for a duration of eight hours, with higher levels being allowed for shorter durations. Table 2 shows permissible noise exposure. These standards have been developed to minimize risk and, at the same time to consider economic factors. Groups other than OSHA have recommended other criteria, and the standards are under constant review.

Economic Effects of Noise

Several factors of economic importance have arisen in the past 20 years. In 1947 in New York, the first suit to require an employer to compensate a worker for hearing loss incurred on the job was filed.[8] Since then, the number of civil suits has increased exponentially. Noise-related suits against airports and other noisy facilities also have been filed by residents.

In industry, voluntary guidelines for occupational noise have been available since the late 1930s, but now the federal government is mandating their use. Lengthy hearings involving in-

TABLE 1

Sensation	*dB*	*Common Noise Levels*
	180	Space rocket at takeoff
	150	Jet plane at takeoff (50 ft. away)
		Shotgun
Pain Threshold	140	Air-raid siren at 100 ft.
	130	Hydraulic press
		Some toy cap pistols
Discomfort Threshold	120	Prop plane at takeoff
		Some rock music
	110	Woodworking shop
		Chain saw
	100	Heavy trucks at 20 ft.
		Some power mowers
Speech interference	90	Many small outboard motors
		Loud shout
		Garbage disposal
Intolerable for telephone use	80	Vacuum cleaner
		Office with tabulating machines
	70	Dishwasher
Annoying		Noisy restaurant
	60	Light traffic
		Average conversation
	50	Inside average residence
	40	Refrigerator
	30	Inside T.V. broadcast studio
	20	Leaves rustling in breeze

TABLE 2*
PERMISSIBLE NOISE EXPOSURE FOR CONTINUOUS NOISE

Duration Hours Per Day	*Sound Level dBA*
8	90
4	95
2	100
1	105
½	110
¼	115

* OSHA's existing standards.

dustry, labor and the government have been conducted in the past decade. They concern the feasibility and effectiveness of regulations. Estimates of the cost of compliance with these regulations are in the tens of billions of dollars range.

There is no doubt that in the future, major industries are going to incur large expenditures in regard to NIHL regardless of the manner in which the problem is approached. Funds will be spent to quiet noisy machinery or replace it, they will be used to implement and maintain hearing conservation programs, or they will be spent in compensation to hearing impaired employees.

The U.S. Air Force has made some effort to quiet its aircraft and other loud equipment but has concentrated its efforts in effective hearing conservation programs which have been extremely successful. Small businesses, the self-employed and farmers, for example, will have no federal regulation. As a result, many will lose a vital sense of communication. Hearing conservation is essential for industry and for all of us. It is here that the physician plays an important role.

Role of the Physician in Hearing Conservation

In large industrial settings the industrial physician will refer the patients to otologists who are experienced in evaluating this type of hearing impairment and in making appropriate recommendations.

In smaller industries the local physician may be placed on a retainer to help with the hearing conservation program. This will necessitate a knowledge of noise, NIHL, ear protection and basic audiometry. When employees take pre-employment and annual hearing tests, some will be referred for hearing loss of all types and degrees. Some will be due to NIHL, and some will be due to ear disease of an unrelated nature. Other questions relative to ear plugs, muffs and tinnitus must be answered.

Personal hearing protectors include muffs, disposable ear plugs, and molded earplugs. Many types are available for purchase in gun shops and drug stores. Plugs are usually more comfortable, but muffs may be needed if the noise level is very high. There are advantages and disadvantages to both muffs and plugs, and they vary considerably in cost. The most expensive are not always the best.

Even if a physician is not involved in the industrial setting, he needs to know about NIHL. Our environment is a noisy one and the public is becoming increasingly aware of the associated problems. Farmers are particularly in danger but so are those who work or play with power tools, routers, chain saws, snowmobiles, firearms, etc.

Everyone is enthusiastic about efforts to prevent heart disease, blindness, tuberculosis, cancer and veneral disease. Millions of dollars are donated to such efforts. Yet, more people suffer from significant hearing handicaps than from all of the above combined.

Remember that noise-induced hearing loss is probably the most common cause of hearing impairment in our society. The good news is that

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JAMES KNIGHT, M.D. *and*
PAUL J. GARVIN, M.D., *St. Louis*

Duodenal Duplication in the Adult

Duodenal duplications are congenital anomalies that usually become manifest during infancy or early childhood. This is a case report of an adult patient with a large duodenal filling defect that, at operation, proved to be a duodenal duplication. The authors discuss surgical treatment individualized on the basis of symptoms and anatomic factors.

Dr. Knight and Dr. Garvin are from the Department of Surgery, St. Louis University School of Medicine.

GASTROINTESTINAL DUPLICATIONS have been reported at all levels of the alimentary tract with the ileum being the most common abdominal location. The duodenum is an uncommon site for the occurrence of duplication, accounting for 4% to 12% of such anomalies.[1] The diagnosis of duodenal duplication is most often made in infants, but symptomatic duplications have been reported in adults. Thompson, in a collective review of the literature, cited that 33% of patients reported were 20 years of age or older.[2]

This report describes a patient found to have a large duodenal filling defect that, at operation, proved to be a duodenal duplication.

CASE REPORT

A 32-year-old man was seen at the St. Louis University Medical Center with a 12-month history of intermittent epigastric pain. For three weeks prior to his admission, this pain occurred daily and had increased in intensity. Associated symptoms included a bloating sensation soon after eating and a 10 lb weight loss during the month prior to admission.

Two years before, the patient experienced a similar episode of epigastric pain with bloating. At that time, an upper gastrointestinal series revealed a filling defect in the second portion of the duodenum. At endoscopy, a 2 cm duodenal polyp was found. Biopsy of the polyp was done and the pathologist reported it to be an adenomatous polyp. The pain subsided and the patient was discharged.

Results of a physical examination at this admission were normal. Admission laboratory values were within normal limits.

An upper gastrointestinal series shortly after his admission revealed what was interpreted as a polyp in the second portion of the duodenum (Fig. 1). Endoscopy disclosed diminution of the lumen with an extrinsic mass effect noted medially in the second portion of the duodenum. Biopsy tissue was interpreted as normal duodenal mucosa.

Because of persistent pain, the abdomen was explored. Duodenotomy was performed and a soft 3 cm x 2 cm fluid-filled mass was found that was contiguous with the medial second portion of the duodenum. The ampulla of Vater was located just distal to this mass. A transverse incision over the mass was performed and approximately 10 cc of mucoid fluid was released. The common duodenum-cyst wall was biopsied and examination of tissue on frozen section revealed it to be normal duodenal mucosa. This wall was partially excised and the edges oversewn with absorbable suture. The duodenotomy was closed in two layers. Postoperative recovery was uneventful and follow-up upper gastrointestinal series was interpreted as normal (Fig. 2).

The final opinion by the pathologist was that of duodenal duplication. The patient was discharged on the eighth postoperative day and has remained asymptomatic during the past year.

DISCUSSION

Duodenal duplications are congenital anomalies that usually become manifest during infancy or early childhood, although symptomatic duodenal duplications have been discovered in adults.[3, 4] The most common location is on the anterior wall of the first and second portion of the duodenum near the mesenteric border.

These duodenal duplications are usually cystic and do not communicate with the duodenal lumen. Exceptions to this occur when there is pressure necrosis of the common wall or when the duplication is lined with gastric mucosa and peptic ulcer perforation occurs.

Occasionally, cystic duodenal duplications can communicate with the common bile duct, secondary to erosion of a gallstone into the lumen. A more infrequent tubular variant that occurs communicates with the duodenal lumen and extends through the diaphragm into the chest. This type usually contains gastric mucosa and is often associated with thoracic vertebral anomalies. His-

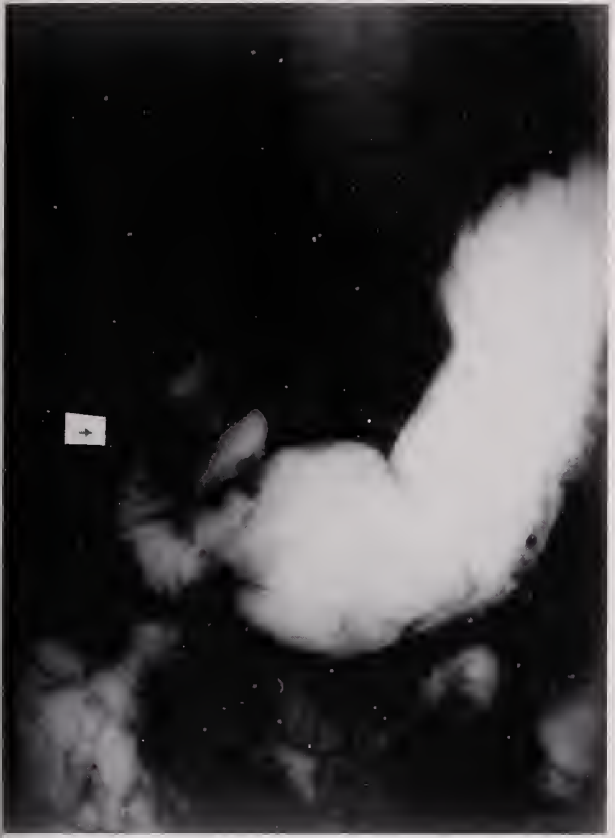

Fig. 1 Preoperative upper gastrointestinal series demonstrates a filling defect in the second portion of the duodenum *(arrow).*

ologically, the duplications are usually lined by duodenal mucosa. In 13% to 15% of cases, gastric mucosa with the potential for peptic ulceration is present. However, this variant usually becomes clinically manifest in childhood.

The most common presenting symptoms are nausea, vomiting and abdominal pain related to partial obstruction of the duodenal lumen. Obstructive jaundice or acute pancreatitis from compression of the ampulla of Vater occur infrequently. Hemorrhage or free perforation of a duplication lined with gastric mucosa has been reported, but these complications are more frequent during childhood. Physical examination may reveal a palpable mass in the mid-epigastrium or right upper quadrant.

Although specific radiologic diagnosis of cystic duodenal duplication cannot be made, upper gastrointestinal series usually demonstrate a filling defect in the second portion of the duodenum with a variable degree of proximal dilatation. Observation on fluoroscopy of flexible walls in the duodenum above the obstruction is helpful in indicating the benign nature of the obstruction.

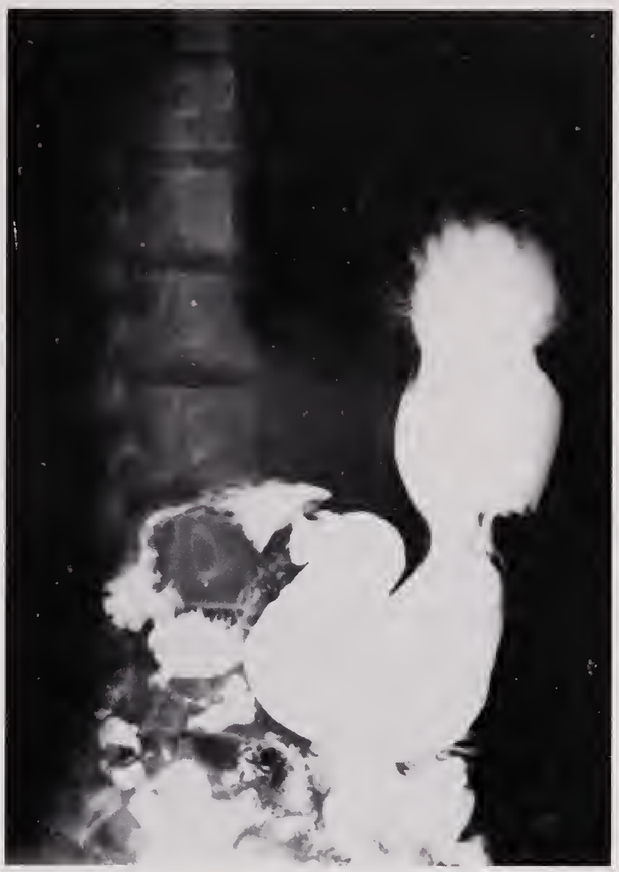

Fig. 2 Postoperative upper gastrointestinal series demonstrates irregularities of lateral duodenal wall compatible with postoperative changes.

Gastroduodenoscopy will rule out mucosal disease and demonstrate diminution of the lumen by extrinsic pressure.

Surgical treatment of duodenal duplications should be individualized on the basis of symptoms and anatomic factors. Ideally, segmental resection to include the bowel containing the cyst should be utilized. This procedure would eliminate the risk of peptic ulceration if the anomaly contained gastric mucosa. Unfortunately, most cystic duplications are adjacent to the biliary and pancreatic drainage systems, making resectional therapy too risky. Under these circumstances, conversion of the duplication into a diverticulum by cutting a window in the common wall has been advocated by Gardner[6] if the lesion is small. If the duplication is large, cystojejunostomy has been employed with good success.[7] Duodenal resections with gastroduodenostomy or gastrojejunostomy with biliary reconstruction have been reported, but there may be complications related to biliary drainage.[8]

Our experience supports internal drainage of the duplication by excision of the common wall or creation of a window as the treatment of choice. Duodenal resection should be reserved for duplications involving the first portion of the duodenum, especially when a gastric resection is required for a concomitant lesion. Large duplications can be effectively treated by cystojejunostomy. Needle aspiration or marsupialization should not be employed for this disease.

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Chest Case of the Month

(Continued from page 639)

positive Mycobacterium tuberculosis by culture during the sarcoid episode; and 1.8% had caseating tuberculosis late in the course of sarcoidosis.[8] He states, "It can be decided beyond doubt that a case belongs to the category 'sarcoidosis' only by a complete necropsy — or by an impossibly large number of biopsies. . . . The need for histologic evidence varies inversely with the confidence with which the clinical picture in the individual case is recognized."[7]

In his 1968 textbook of surgical pathology, Ackerman dismisses sarcoidosis in two pages and states, "In our opinion, Boeck's sarcoid has been used too often as a waste basket for numerous disease processes which have not been specifically identified."[9]

In this brief case report no effort has been made to cover, even superficially, the still existing controversy about the etiology of sarcoidosis and its relationship to tuberculosis. In our case, it would seem that the patient probably had a heavy exposure to Mycobacterium tuberculosis from her mother early in the course of her life, and she probably had an indolent form of tuberculosis from the beginning.

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Hearing Loss

(Continued from page 643)

almost all of it can be prevented. The bad news is that we are presently not doing a very good job of preventing it.

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Familial Occurrence of Nonmedullary Thyroid Carcinoma

Experience at the University of Missouri Health Sciences Center

ALTHOUGH differentiated thyroid malignancy is an uncommon cause of death, it is a frequent autopsy finding (to 5.7%).[1] While most cases appear to be sporadic, several etiological factors appear to increase the risk of developing thyroid cancer. These include prior radiation exposure to the head and neck, inborn errors of thyroid metabolism, iodine deficiency and the presence of several familial syndromes. Even though the occurrence of thyroid malignancy in one member of a family is said to increase the risk of malignancy in other family members, there is little documentation of this in the literature.

We have reviewed the University of Missouri Health Sciences Center's (UMHSC) experience with thyroid cancer in regard to etiological factors as well as the literature on this subject.

METHODS

All medical records coded for thyroid malignancy between January of 1958 and May of 1980 were reviewed by one of the authors. The pathology reports in the charts were used for classification. Family history and history of irradiation were obtained from the data present in the medical record.

RESULTS

Between January 1958 and May 1980, 108 cases of thyroid cancer were diagnosed and treated at the University of Missouri Health Science Center. The ratio of female patients to male patients was similar to that found in other studies.[2] Eighty-one patients were female (74%) and 28 were males (26%). Ten (9%) of the patients were under 20 years of age when diagnosed. Papillary carcinoma was the most common form of thyroid cancer (47% of cases) and follicular carcinoma was next most common (25%) (Table 1). Medullary carcinoma of the thyroid was the least common, representing 6% of all the cases.

Prior radiation exposure to the head and neck has been linked as an etiological factor in the development of thyroid neoplasia.[3-6] Six patients in the UMHSC series had a history of prior irradiation.

A positive family history of thyroid disease was obtained in 21 (19%) of the cases of thyroid cancer reviewed. In only two (1.8%) of these cases was there a family history of thyroid cancer. One patient had papillary carcinoma and the other had a mixed papillary and follicular malignancy. Both

TABLE 1

Histological Cell Type	*Total #/%*	*Pos. F.H.*	*Prev. Rad.*	*No. With Autoimmune Diagnosis*
Papillary	51/47%	14 (27%)	1	7[2]
Follicular	27/25%	3 (11%)	4	1
Papillary/ Follicular	9/8%	3 (33%)	1	—
Medullary	6/6%	1 (17%)	—	—
Undifferentiated[1]	15/14%	—	—	1

1. Five anaplastic; three giant cell; five undifferentiated; one adenocarcinoma and one unclassified.
2. Five patients had lymphocytic thyroiditis and two had Graves Disease.

Documentation of possible familial transmission of thyroid cancer (except for medullary carcinoma of the thyroid) has been sparse. Data collected by the authors confirm this but also serve to point out a possible relationship between a positive family history of nonmalignant thyroid disease and the occurrence of thyroid malignancy. Dr. Johnson and Dr. Gardner are from the Department of Medicine, Division of Endocrinology, University of Missouri-Columbia Health Sciences Center.

patients had a sibling with thyroid cancer. The cell type was not recorded for the siblings. The family history of one 14-year-old boy with follicular thyroid cancer included thyroid adenomata in four separate generations, although there was no history of carcinoma. This particular patient had no evidence of an error in thyroid metabolism or prior radiation exposure. He could not be categorized into any of the familial syndromes associated with thyroid cancer (discussed below).

Patients with papillary carcinoma and mixed papillary follicular carcinoma were much more likely to have a positive family history of nonmalignant thyroid disease than patients with follicular carcinoma (Table 1).

Discussion and Review of the Literature

Although several etiological factors have been associated with an increased risk of thyroid cancer, prior radiation exposure has been the best documented. Winship's study[3] of 878 cases of thyroid malignancy in children clearly points out this relationship. Other studies have confirmed this finding.[4, 5] DeGroot[6] also pointed out a possible 20 to 30 year latency period from exposure to presentation. The Atomic Bomb Casualty Commission and the Japanese National Institute of Health published reports indicating a substantial increase in thyroid carcinoma in those people exposed to ionizing radiation from the atomic bomb explosions in 1945. When compared to a risk of 1.0 in age and sex-matched controls, the risk was increased to 9.4 in male patients and 5.0 in female patients. The cumulative risk was greatest in those under 20 years of age and exposed to at least 50 rads.[7, 8]

The relationship between thyroid malignancy and a positive family history of a nonmalignant thyroid disease has, to a large extent, been ignored in the literature. Winship[3] and Exelby[9] reported on more than 2,000 cases of thyroid cancer between them. Only nine of the patients in these cases are reported to have a positive family history of thyroid disease. In our series, 21 or 19% of these patients have at least one family member with thyroid disease. If this observation is borne out in other studies, it suggests a possible relationship between a family history of thyroid disease and well differentiated thyroid cancer. There was no history of thyroid disease in the families of patients with undifferentiated thyroid carcinomas (Table 1).

Although a positive family history for thyroid cancer is often mentioned as a risk factor for developing thyroid cancer, there is little documentation of this in the literature. Nemec[10] and coworkers described a differentiated thyroid malignancy in a mother and son. Papillary carcinoma was first discovered in the boy and four years later, follicular carcinoma was discovered in his mother. In this report, there was no accompanying historical or clinical data to support other plausible etiologies such as prior irradiation or familial colonic polyposis. In our series, only two of 108 patients had a relative with thyroid cancer. Thus, a genetically linked etiology appears remote.

Review of the literature suggests that there may be a relationship between the development of thyroid cancer and the presence of inborn errors in iodine metabolism.[11] This relationship is supported by reports of thyroid cancer in kindreds with deaf-mutism and goiter.[12] This syndrome appears to be inherited as an autosomal recessive trait and the goiter may possibly be secondary to a deficiency in peroxidase activity. In 1952, Thiem[13] reported a kindred with this syndrome in whom two of four effected siblings had thyroid malignancy. Additionally, Roberts[14] described a 9-year-old boy with deaf-mutism, nodular goiter and thyroid adenocarcinoma. Finally, Elman[12] in 1958 described four siblings with this syndrome. Two of the affected members developed invasive carcinoma of the thyroid gland. Stanbury[1] felt that thyroid malignancies in patients with inborn errors of iodine metabolism could be the result of long term TSH stimulation and hyperplasia.

Iodine deficiency in man has been associated by some physicians with follicular and anaplastic carcinoma of the thyroid, but the epidemiological evidence is inconsistent.[15, 16] Iodine deficiency is not a problem in our patient population and thus no new data were obtained in regard to this problem.

Other nonthyroidal genetic disorders have been associated with thyroid cancer. Gardner's Syndrome is an autosomal dominant disorder in which patients may develop multiple polyposis of the large intestines, osteomas, epidermoid cysts and fibromas of the skin, and supernumerary teeth. Descriptions of several malignancies in this syndrome include adrenal carcinoma, periampullary carcinomas and thyroid carcinomas.[17]

Another familial syndrome in which there may be increased incidence of thyroid cancer is Cowden's disease or multiple hamartoma syndrome.[18, 19] The major feature of this syndrome is multiple mucocutaneous hamartomas. The second most common finding is multiple thyroid tumors. They are usually adenomas but one case has been described as thyroid cancer.

Finally, autoimmune thyroid disease, i.e. lymphocytic thyroiditis, and Grave's disease have been associated with thyroid malignancy. The possibility that Hashimoto's thyroiditis is a precursor to thyroid malignancy is not known. Crile and Hazard[20] did not find a single case of thyroid cancer while following 222 patients with Hashimotos thyroiditis for more than 1,000 person years. However, most of these patients were maintained on a regimen of thyroid replacement which may be a factor in diminishing the incidence. The reported prevalence of Hashimoto's thyroiditis with thyroid malignancy is from 1.5% to 3.0%.[1] Our data reveal 8% of the patients with thyroid cancer also had evidence of autoimmune thyroid disease, i.e. seven with lymphocytic thyroiditis and two with Grave's disease.

Conclusion

Except for medullary carinoma of the thyroid, the overwhelming evidence is that differentiated thyroid cancer is not a heritable disease when considered alone. Differentiated thyroid carcinoma has been associated with other findings such as inborn metabolic errors of thyroid metabolism, deafness, intestinal polyposis, mucocutaneous lesions and autoimmune thyroid disease. Documentation regarding possible familial transmission of thyroid cancer, other than described above, has been sparse. Our data tend to confirm this, but they also serve to point out a possible relationship between a positive family history of nonmalignant thyroid disease and the occurrence of thyroid malignancy. Further studies will be needed before such a conclusion can definitely be made.

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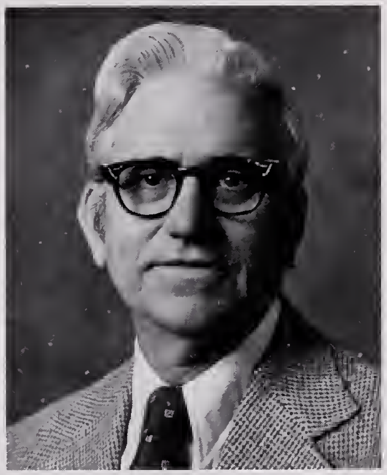
President's Message

Practice Is Medicine

At a recent meeting, the MSMA Council reviewed the provision that oral surgeons be permitted to record patient histories and perform physical examinations in accredited hospitals. This policy has been approved by the Joint Committee on Accreditation of Hospitals although the reasons for doing so are not clear to me.



Eugene T. Hansbrough, M.D.

Testimony at the meeting revealed that dental school graduates are being taught both of the above procedures during their oral surgery residencies. However, I heard no evidence that they are also being taught to evaluate the diseases for which they apparently are "examining."

Consequently, I am not convinced that dentists are capable of the general practice of medicine. Are you? I see this request as another attempted "march to the forefront" of more non-physicians who want to practice medicine. The first "march" was the physicians assistant program in which an individual with one or more years of training after high school could actually practice medicine under some type of guidance by a physician via telephone for patients as far as 30 to 40 miles away.

Then it was graduates of chiropractic schools who recently managed to influence the House of Representatives to extend their practice act in our state. Fortunately, this bill was vetoed by Gov. Christopher Bond. Podiatrists and optometrists also want to practice medicine.

Next, provisions of the Nurses Practice Act were extended to more closely approach the practice of medicine.

It seems that in earlier years, persons who wanted to practice medicine were marginal. Today, however, many of our non-physician friends are better trained in their various health care fields and seem to feel they are qualified to practice medicine.

I am compelled to say that anyone who intends to practice medicine must have earned an M.D. or D.O. degree to be equipped to make the vital day-to-day decisions necessary to provide proper care for people who are ill and to evaluate persons who are well. Proper education and experience are necessary to determine which patients are suffering a potentially lethal condition. This requires the vigilance and knowledge of our most highly trained physicians and cannot be trusted to those with only "screening ability."

What I have said here should serve as another reminder for you to join the officers of your MSMA by becoming a $100 member of AMPAC. Your interest and your contribution are needed to support legislators who understand the importance of correct legislation regarding medicine. If you knew what I know about AMPAC, you would send your $100 immediately after reading this information.

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To all spouses of MSMA members:

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Mrs. Jerry Meyer
President

As a MSMA Auxiliary member, you can provide many services. Belonging to the Auxiliary provides a special opportunity to project a positive image of physicians. The Auxiliary works closely with the MSMA in supporting sound, health-related legislation for all Missourians. The Auxiliary has successfully raised money for loans to medical students and residents, grants to medical schools and funds to help educate nursing and medical personnel. As a volunteer, not-for-profit organization, the Auxiliary works hard to improve the health and welfare of people in local communities.

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The need for volunteer hours to accomplish the community service and other programs of the Auxiliary is constantly increasing. Assisting the Missouri State Medical Association in the promotion of good health, medical education and health-related legislation is the Auxiliary's reason for being. Join us and reap the many rewards of supporting your spouse's professional organization by contacting Mrs. Donald Sanders, 200 Avila Circle, Kansas City, MO 64114 or your county auxiliary president.

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> ***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences--National Research Council and or other information, FDA has classified the indications as follows
>
> "Possibly" effective for the treatment of pain accompanied by tension and or anxiety in patients with musculoskeletal disease or tension headache
>
> Final classification of the less-than-effective indications requires further investigation
>
> The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION. An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepem) during the first trimester of pregnancy has been suggested in several studies. Beceuse use of these drugs is rarely a matter of urgency, their use during this period should almost elways be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be edvised that if they become pregnant during therapy or intend to become pregnent they should communicate with their physicians about the desirability of discontinuing the drug.

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or neer maternal plasma levels and in breast milk of lactating mothers at concentrations two to four times that of maternal plasma. When use of meprobemate is contemplated in breast-feeding patients, the drug's higher concentration in breest milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues repidly and blood pressure pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants e g caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate, 75 mg ethoheptazine citrate and 250 mg aspirin

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts, as well as misuse of tranquilizers alcohol or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE. Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine s although quantitatively less and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards

USAGE IN CHILDREN Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants including alcohol

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation abdominal pain, skin rashes light-headedness headache weakness euphoria dysphoria and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol tranquilizers sedative-hypnotics and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume Cheyne-Stokes respiration cyanosis) extreme somnolence progressing to stupor or coma pupillary constriction and circulatory collapse In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea cardiac arrest and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea vomiting anorexia, and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours However early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms, the patient may feel less ill however laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice coagulation defects hypoglycemia, encephalopathy coma and death may follow Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient s condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions

Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine which may cause anorexia nausea vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
***Contact:* Ronald G. Evens, M.D., Director**

Nov. 9	City-Wide Radiological Conference — Single-Photon Emission Tomography
Dec. 14	City-Wide Radiological Conference — Skeletal Injuries in Sports
1982)	
Jan. 11	City-Wide Radiology Conference St. Louis University
Feb. 8	City-Wide Radiology Conference — CT of the Genitourinary Tract
Mar. 8	City-Wide Radiology Conference — Photo-Electronic (Digital) Radiology
Apr. 14	Leroy Sante Lecture by Dr. Benjamin Felson, University of Cincinnati
May 10	City-Wide Radiology Conference — Neuroradiology

University of Missouri School of Medicine
Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
***Contact:* William D. Bradshaw, M.D.**

Oct. 29-31	Third Annual Advances in Rheumatology Symposium
Nov. 5-6	M.D. Day West (Hilton Harvest House, Boulder, Colo.)
Nov. 13-14	Dysphagia: Pharyngeal and Upper Esophageal Causes
1982)	
Jan. 6-9	Diagnosis and Treatment of Headache (Camelback Inn, Scottsdale, Ariz.)
Feb. 15-17	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10-11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29-30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	A Working Conference on Authority, Responsibility and Organization
Apr. 22-23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

Greater Kansas City Radiological Society

Note: 4:00 PM lectures will be held in the Dept. of Diagnostic Radiology, University of Kansas Medical Center, Kansas City, Kan.
6:30 PM lectures will be held at the Alameda Plaza Hotel, Kansas City

Nov. 13	8:30 PM Malpractice and the Radiologist
(1982)	
Jan. 13	4:00 PM CAT Scanning of the Appendicular Skeleton 6:30 PM CAT Scanning of the Spine
Feb. 10	4:00 PM Recent Advances in Diagnostic Ultrasound 6:30 PM Obstetrical Ultrasound: An Update
Mar. 10	4:00 PM Digital Radiography — Equipment and Technical Considerations 6:30 PM Digital Radiography Clinical Applications
Apr. 14	4:00 PM Percutaneous Abscess Drainage 6:30 PM Percutaneous Biopsy Techniques

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Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
***Contact:* Loretta Giacoletto, Office of CME**

Nov. 5-7	Clinical Allergy for the Practicing Physician
Nov. 13-15	Eighth Annual Symposium — Anesthesia and the Geriatric Patient (Marriott Hotel)
Dec. 5	Low Back and Sciatic Pain: Evaluation and Treatment
Dec. 10-12	Current Concepts in Cancer Therapy — Missouri Chapter, American Cancer Society (Stouffer's Riverfront Towers)
(1982)	
Jan. 17-22	Pediatric Gastrointestinal Disease (Keystone, Colo.)
Jan. 23-30	Obstetrics and Gynecology (Aboard the M/S Southward)
Apr. 2-5-May 3	Fourth Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Athens, Greece)

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

Oct. 29-31	Annual Fall Clinical Conference — Kansas City Southwest Clinical Society (Alameda Plaza Hotel)
Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)
(1982)	
Jan. 16-23	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Steamboat Springs, Colo.)
Feb. 19-20	The Long Weekend: Medical Problems in the Patient Who Needs Surgery (Alameda Plaza)
Feb. 21-28	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Palm Springs, Calif.)
Feb. 28-Mar. 7	Traveling Medical Education Course — Kansas City Southwest Clinical Society (St. Thomas, U.S. Virgin Islands)
Mar. 18-20	Perspectives in Medical Care (Hyatt Regency Hotel)
Mar. 20-27	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Crested Butte, Colo.)
Mar. 31	Reproductive Endocrinology and Infertility (Alameda Plaza Hotel)
Apr. 1-3	Update in Obstetrics and Gynecology (Alameda Plaza Hotel)
May 6-7	Surgical Problems — The Old and the New (Alameda Plaza Hotel)
June 5	Symposium on Physical Fitness (Crown Center Hotel)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesdays)

Nov. 18-20	Clinical Advances in Pediatrics (The Children's Mercy Hospital)

St. Louis University Medical Center
Continuing Education
3544 Caroline St., St. Louis 63101
(314) 664-9800, Ext. 127
***Contact:* John A. Grellner, Director**

Dec. 9	Pulmonary Problems for Emergency Physicians

Mercy-Baptist Eye Foundation
615 S. New Ballas Rd., St. Louis 63141
***Contact:* Richard B. Oglesby, M.D.**

(1982)	
May 16	14th Eye Seminar: Extracapsular Cataract Extraction

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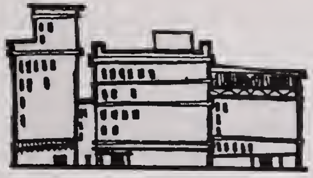

NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

Sen. Orrin Hatch (R-Utah) presented the keynote address at St. Louis University Medical Center's sixth annual community conference on Oct 16. Topics discussed this year include business' direct and indirect costs by *Edward Frantel*, president and chief executive officer of the Seven-Up Co.; employee demands for health care by *Dr. Louis Fernandez*, vice-chairman of Monsanto Co.; and management options by *William Bush*, president of The Boatmen's National Bank of St. Louis.

Initiated in 1976 by *George E. Thoma*, M.D., vice-president of the Medical Center, the community conferences are designed to involve business leaders in finding solutions to rapidly rising health care costs. They have focused on measures to keeping healthy, such as health promotion programs for businesses and alternate health care delivery systems.

The Center for Health Care Ethics at the Medical Center, directed by the *Rev. Kevin D. O'Rourke*, O.P., co-sponsored a conference with the National Right to Life Educational Trust Fund on September 11-12.

Titled "The Human Life Amendment," the two-day conference drew more than 200 persons from across the nation to discuss the implications of a human life amendment on law, medicine and society. Speakers included *Denis Cavanagh*, M.D., professor of obstetrics and gynecology, University of Southern Florida College of Medicine; *James Bopp*, general counsel, National Right to Life Committee; and *Vincent Rue*, Ph.D., associate professor of Family Relations, California State University in Los Angeles.

The conference proceedings will be transcribed and published by the National Right to Life Educational Trust Fund.

Michael D. Cole, Ph.D., assistant professor of biochemistry, School of Medicine, has been awarded a two-year, $146,083 grant from the American Cancer Society, Inc., Missouri Division, to study the genetics of mouse myeloma tumor cells.

"Virus particles are found within every myeloma tumor cell," says Dr. Cole, "but only rarely are found in normal mouse tissues. Factors involved in the activation of the viral genes will be examined for any link to the initial formation of cancer."

Dr. Cole earned his Ph.D. degree at Johns Hopkins University in 1978. He pursued postdoctoral work there before coming to the School of Medicine in the summer of 1980.

Behrooz A. Akbarnia, M.D., has been named director of orthopedic surgery at Cardinal Glennon Memorial Hospital for Children. He also holds the rank of associate professor of orthopedic surgery at the School of Medicine.

Dr. Akbarnia

In announcing the appointment, *Thomas Aceto, Jr.*, M.D., medical director of the hospital, stated that Dr. Akbarnia specializes in the treatment of scoliosis and is one of the few authorities on curvature of the spine in the St. Louis area.

Prior to joining Cardinal Glennon Hospital, Dr. Akbarnia served as visiting professor of orthopedic surgery at the University of Minnesota and attending physician at the Spine Service, at Gillette Children's Hospital in St. Paul.

A graduate of Tehran University Medical School, Dr. Akbarnia took a residency in general surgery at Berkshire Medical Center in Pittsfield, Mass. and residencies in orthopedic surgery at Albany Medical Center Hospital, Albany, N.Y. and the Shriner's Hospital for Crippled Children, Philadelphia. From July to December 1975, he was the John H. Moe, M.D., Scoliosis Fellow at Twin Cities Scoliosis Center, Minneapolis.

He is a member of numerous professional organizations including the American College of Surgeons, the Orthopaedic Research Society, the Scoliosis Research Society and the International

Medical Society for Paraplegia. He is a recipient of the George Mamonas Award for Excellence in Surgical Training and has twice received the Physicians Recognition Award from the American Medical Association.

UNIVERSITY OF MISSOURI-COLUMBIA

David E. Scott, professor of anatomy at the University of Rochester, has been named professor and chairman of the Department of Anatomy at the University of Missouri-Columbia Medical School. His appointment was effective on August 1.

Dr. Scott

Dr. Scott earned M.S. and Ph.D. degrees in anatomy from the University of Southern California in 1964 and 1967. While at USC, he was a U.S. Public Health Fellow in the Department of Anatomy. He joined the University of Rochester faculty in 1967 and in 1971 received a career development award from the National Institutes of Health.

His research activities have focused on the structured correlates of neuroendocrine mechanisms in the perinatal, adult and senescent brain. He employs a variety of technologies in this pursuit including transmission electron microscopy, scanning electron microscopy and autoradiography.

He is a member of several national and international academic professional societies including Sigma Xi, the American Association of Anatomists, the American Association of Neuropathologists, Electron Microscopic Society of America, the American Academy of Neurology, the International Society of Neuroendocrinology and the Society for Neuroscience. He is the chief editor of the International Brain-Endocrine Interaction symposium series which is held every three years in various countries throughout the world.

Dr. Hans O. Mauksch, professor of sociology and family and community medicine, received the 1981 Award for Distinguished Contributions to Teaching from the American Sociological Association at the society's annual meeting in late August. He was cited for his leadership in initiating and establishing the association's teaching services program, part of which he still coordinates from his Columbia office.

At the meeting in Toronto, Dr. Mauksch was elected to a three-year term on the association's governing board. He also will serve as president of the Midwest Sociological Society until April 1982. The society is one of seven regional organizations of sociologists.

Dr. Patrick Henry, professor of medicine and director of the division of hematology and medical oncology, has been named interim chairman of the Department of Internal Medicine.

An acting director for the division will be named soon.

Dr. Henry joined the UMC faculty in 1969 after six years with the National Cancer Institute's Acute Leukemia Service.

A 1958 graduate of the University of Arkansas School of Medicine, Dr. Henry took his internship at Duke Hospital in Durham, N.C.; returned to the University of Arkansas Medical Center in Little Rock for the first two years of his residency; and then completed residency training at Duke University in 1962. He was in Duke University's Research Training Program for a year before going to the National Cancer Institute.

He is certified by the American Board of Internal Medicine in internal medicine, hematology and medical oncology and is a member of the American Association for Cancer Research, American Federation for Clinical Research Southern Society for Clinical Investigation, American Society of Hematology, American Society of Clinical Oncology, Association of Hematology-Oncology Program Directors and a Fellow of the American College of Physicians.

For the past 12 years, Dr. Henry has been a principal investigator for the Cancer and Leukemia Group B, an international cooperative cancer chemotherapy study group.

The University of Missouri has been awarded a $141,310 Robert Wood Johnson Foundation grant to support the foundation's Rural Infant Care Program for a year. *Dr. Stanley N. Graven*, professor of child health is director of the program.

The program's goal is to reduce infant mortality and morbidity in isolated rural communities. "The University is well situated to have a strong impact on perinatal care for rural mothers in Missouri," Dr. Graven says.

While the infant death rate in the United States has dropped 45% since 1960, other industrialized countries have also improved their statistics. Dr. Graven attributed the U.S. lag to relatively higher infant death rates among nonwhite populations primarily in rural communities with fewer health care resources. He said the larger numbers of high risk-mothers in urban areas have had priority attention.

The Rural Infant Care Program combines the resources of state and local health departments and medical schools to improve perinatal care for expectant mothers who have limited access to adequate health care.

Dr. Graven, who developed regional prenatal programs in Wisconsin and South Dakota, is also program director of the $7 million Rural Infant Care Program in nine states. This is the second year the University has been involved in the program.

Correction, Please!

Dr. Henry G. Schwartz, Washington University School of Medicine in St. Louis, is the editor of the *Journal of Neurosurgery* published monthly by the American Association of Neurological Surgeons. It was incorrectly reported in the August, 1981 issue that *Dr. Clark Watts*, UMC, is editor of that journal. In July, 1982, Dr. Watts will become editor of *Neurosurgery* published monthly by the Congress of Neurological Surgeons.

UNIVERSITY OF MISSOURI-KANSAS CITY

The guest speaker for the 1981 School of Medicine Convocation will be *Dr. Dennis S. O'Leary*, dean for clinical affairs and professor of medicine and pathology at George Washington University school of Medicine and Health Sciences. Dr. O'Leary came to national attention earlier this year as the medical spokesman following the assassination attempt on President Ronald Reagan.

The Convocation, which is primarily for incoming medical students and their families, will be held at 3 PM on November 8 in the Performing Arts Center.

The School of Medicine's first student from the People's Republic of China arrived in Kansas City n late August for a four-year stay. *Robert Tian-un Tung*, 25, is a third-year student who studied medicine for three years at the Shanghai Second Medical College. The UMKC School of Medicine stablished a formal sister-school agreement with he Second Medical College in August 1980.

Dean Harry S. Jonas said that the sister-school greement has resulted in some very productive educational exchanges, beginning with the visit of the first Edgar Snow Professor of Medicine, Dr. Hsu Chia-Yu. He added, "We are fortunate to have such an outstanding student as Mr. Tung."

Student *Tim Martin* has received this year's award for superior performance in anatomy established by Harper and Row, textbook publishers. In announcing the award, *Dr. David Moffatt*, chairman of the Department of Anatomy, said the award is given to a student who has passed the pathology/anatomy rotation in Year 3 and who has a superior aggregate score in the gross anatomy, embryology and histology examinations made available by the Association of Anatomy Chairmen in association with the National Board of Medical Examiners.

Mr. Martin has maintained a straight A average since entering medical school.

A play written by Sheryl North, a sixth-year student, was recently produced by the Missouri Repertory theatre in Kansas City. "Twice Over Lightly," the joint title of two one-act comedic murder mysteries, was included in the theatre's academic season this summer.

WASHINGTON UNIVERSITY

Approximately 12.8 million dollars of free medical care was provided by Washington University Medical Center Institutions between June 30, 1980 and July 1, 1981. This is almost twice the amount of that in the previous fiscal year. the Center has donated more than $40 million dollars in the past five years. This information was released at the Center's annual meeting on September 8.

The Center, which includes Washington University and its School of Medicine, Central Institute for the Deaf, The Jewish Hospital of St. Louis, Barnes Hospital, Barnard Free Skin and Cancer Hospital and St. Louis Children's Hospital also reported that $47.4 million dollars was spent on research and $20 million dollars for capital improvements.

Election of the Center's officers was conducted at the meeting. The new members are *Raymond H. Wittcoff*, chairman; *George H. Capps*, vice-chairman; *James S. McDonnell III*, secretary; and *John L. Davidson*, treasurer. Reelected officers are *Samuel B. Guze*, M.D., president; *Virginia V. Weldon*, M.D., vice-president; *Robert J. Hickok*, assistant secretary and *G. Michael Timpe*, assistant treasurer. The annual report containing this information was presented to the Center's board of directors.

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Publisher’s Memo

Several months ago, I mentioned that *AFP’s* editors have found it necessary, in recent years, to give spelling tests to college graduates applying for positions as associate editors. This is sad — but true. What has happened, in 25 words or less, is this: Colleges and universities have shown little reluctance to hand a bachelor’s degree to an English or journalism major who, quite simply, can’t spell.

I’ve beat that drum before and I won’t beat it again (at least not for another month or two). But since my last “Publisher’s Memo” on this subject appeared, we’ve had a modest number of letters and telephone calls from readers who want to know more about *AFP*’s “test.” Without reprinting it in its entirety (an option which a lack of space precludes), here’s one small portion which you can try on yourself or on anyone who will sit still long enough to look at the following list of nine words: nickel, resistent, persistance, occurence, accomodate, unconscious, recommend, accidently, concommitant.

We’ll tell you this much: Some of these words are spelled correctly; some are spelled incorrectly. To get a perfect score on this portion of the *AFP* test, you are required (a) to state which words are spelled incorrectly and (b) spell them correctly. No dictionaries allowed.

Simple, eh? Of course, but give it a try — just for fun. If you don’t rack up a perfect score, don’t feel too bad — college graduates with shiny new journalism or English degrees rarely turn in an error-free effort. The most common mistake (and we really shouldn’t give you this clue) is to *correctly* state that a word is misspelled and to then spell it incorrectly — again!

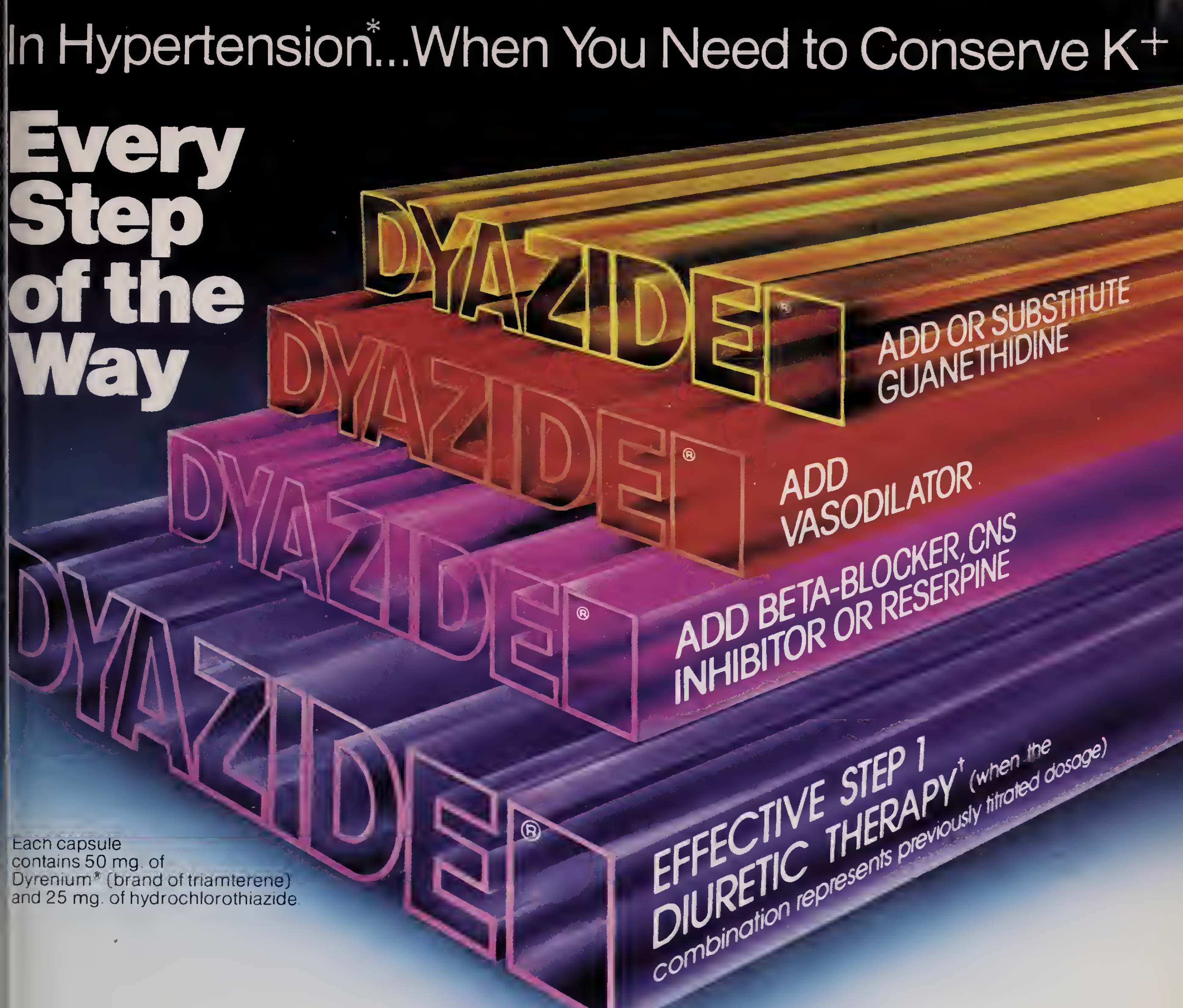
Have fun!

—Reprinted from *American Family Physician* W.H.K.

A wise old owl lived in an oak.
The more he saw the less he spoke.
The less he spoke the more he learned
Thus wisdom passively is earned.

This may be well for an old bird
To perch and stare unseen, unheard.
But I must doubt, these times chaotic,
That wisdom is absorbed osmotic.

Wilfred E. Wooldridge
From: “Mother Goose Brought
Up to Date”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DYAZIDE®
EFFECTIVE STEP 1 DIURETIC THERAPY† (when the combination represents previously titrated dosage)

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

†Step 1 usually consists of an initial phase (a diuretic alone), a titration phase (dosage adjustment and/or addition of a K+ supplement or K+-sparing agent), and a maintenance phase (a diuretic alone or in combination with a K+ supplement or K+-sparing agent).

Serum K+ and BUN should be checked periodically (see Warnings).

efore prescribing, see complete prescribing information n SK&F Co. literature or *PDR*. The following is a brief ummary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension Edema or hypertension requires therapy titrated to the individual If this combination represents the dosage so determined, its use may be more convenient in patient management Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant

ontraindications: Further use in anuria, progressive renal r hepatic dysfunction, hyperkalemia Pre-existing elevated erum potassium Hypersensitivity to either component or ther sulfonamide-derived drugs

arnings: Do not use potassium supplements, dietary or therwise, unless hypokalemia develops or dietary intake f potassium is markedly impaired. If supplementary potas-ium is needed, potassium tablets should not be used Hyper-alemia can occur, and has been associated with cardiac regularities It is more likely in the severely ill, with urine olume less than one liter/day, the elderly and diabetics with uspected or confirmed renal insufficiency Periodically, erum K+ levels should be determined If hyperkalemia evelops, substitute a thiazide alone, restrict K+ intake **Asso-iated widened QRS complex or arrhythmia requires rompt additional therapy.** Thiazides cross the placental arrier and appear in cord blood Use in pregnancy equires weighing anticipated benefits against possible haz-rds, including fetal or neonatal jaundice, thrombocytopenia, ther adverse reactions seen in adults Thiazides appear and triamterene may appear in breast milk If their use is essential, the patient should stop nursing Adequate information on use in children is not available Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids) Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency Watch for signs of impending coma in severe liver disease If spironolactone is used concomitantly, determine serum K+ frequently, both can cause K+ retention and elevated serum K+ Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored) Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides Triamterene is a weak folic acid antagonist Do periodic blood studies in cirrhotics with splenomegaly Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients The following may occur transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods Corrective measures should be instituted cautiously and serum potassium levels determined Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium Chloride deficit may occur as well as dilutional hyponatremia Serum PBI levels may decrease without signs of thyroid disturbance Calcium excretion is decreased by thiazides 'Dyazide should be withdrawn before conducting tests for parathyroid function

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone Triamterene has been found in renal stones in association with other usual calculus components Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established

Supplied: Bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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No one wakes up thinking, "Today I'm going to abuse my child."

Abuse is not something we think about. It's something we do.

Last year in America, an estimated one million children suffered from abuse and neglect, and at least 2,000 of them died needless, painful deaths.

The fact is, child abuse is a major epidemic in this country.

The solution? Part of it lies in your hands. With enough volunteers, local child abuse prevention programs could be formed to aid parents and children in their own communities. With your help, most abusers could be helped. Please write for more information on child abuse and what you can do.

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Abused children are helpless. Unless you help.

Write: National Committee for
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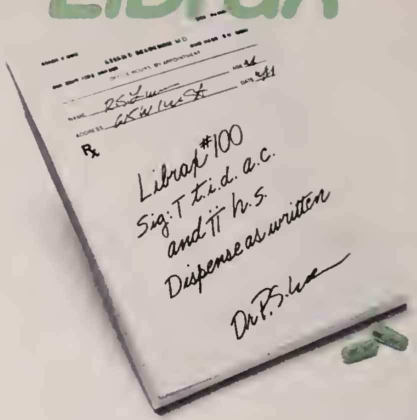

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows.

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis

Final classification of the less-than-effective indications requires further investigation.

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function Paradoxical reactions reported in psychiatric patients Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges Syncope reported in a few instances Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholinergic agents, i.e., dryness of mouth, blurring of vision, urinary hesitancy, constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets

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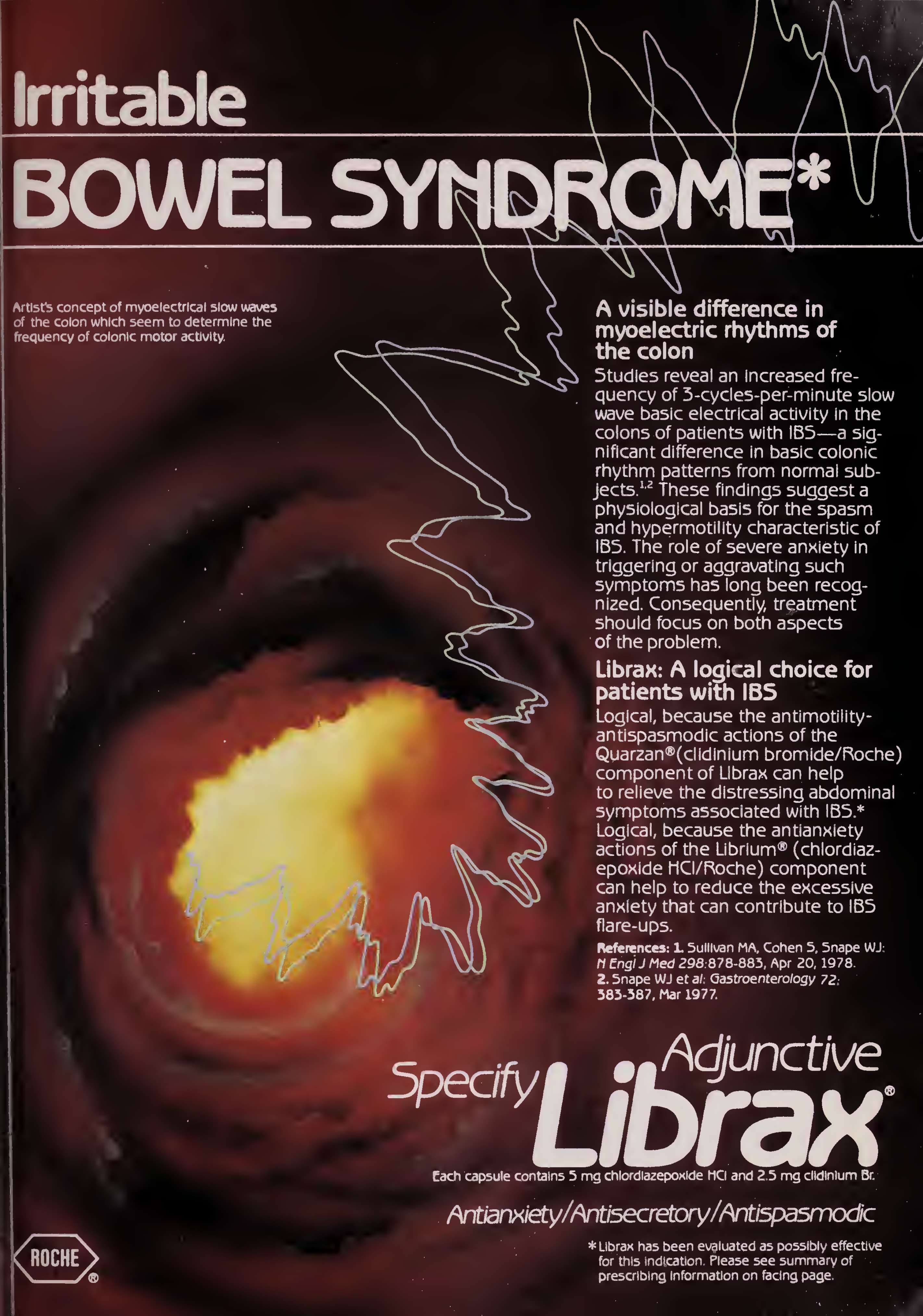

Irritable

BOWEL SYNDROME*

Artist's concept of myoelectrical slow waves of the colon which seem to determine the frequency of colonic motor activity.

A visible difference in myoelectric rhythms of the colon

Studies reveal an increased frequency of 3-cycles-per-minute slow wave basic electrical activity in the colons of patients with IBS—a significant difference in basic colonic rhythm patterns from normal subjects.[1,2] These findings suggest a physiological basis for the spasm and hypermotility characteristic of IBS. The role of severe anxiety in triggering or aggravating such symptoms has long been recognized. Consequently, treatment should focus on both aspects of the problem.

Librax: A logical choice for patients with IBS

Logical, because the antimotility-antispasmodic actions of the Quarzan®(clidinium bromide/Roche) component of Librax can help to relieve the distressing abdominal symptoms associated with IBS.* Logical, because the antianxiety actions of the Librium® (chlordiazepoxide HCl/Roche) component can help to reduce the excessive anxiety that can contribute to IBS flare-ups.

References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med 298*:878-883, Apr 20, 1978. 2. Snape WJ et al: *Gastroenterology 72*: 383-387, Mar 1977.

Specify Adjunctive **Librax**®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/Antispasmodic

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*Librax has been evaluated as possibly effective for this indication. Please see summary of prescribing information on facing page.

Although weight loss achieved in a weight control program varies from patient to patient, this simulated sequence of a professional mode illustrates dramatically the benefits of a successful weight loss program.

40
35
30
25
20
15
getting there...

...takes dietary restriction, regular exercise,
behavior modification, and sometimes
the addition of an effective anorectic.

prescribe

Tenuate* Dospan* ⒸIV
(diethylpropion
hydrochloride USP)

75 mg controlled-release tablets

he #1 prescribed anorectic

An effective short-term adjunct
n an indicated weight loss
rogram

)verweight patients in certain diagnostic categories
ften require strict obesity control. Diethylpropion
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atients with certain complications. While it is not sug-
ested that Tenuate in any way reduces these compli-
ations in the overweight, it may have a useful place
s a short-term adjunct in a prescribed dietary regi-
nen. Tenuate should not be administered to patients
vith severe hypertension; see additional Precautions
nd Adverse Reactions on this page.

n uncomplicated obesity

lany patients, on the other hand, present with excess
t but no disease. While this condition is often termed
ncomplicated obesity, complications of both a social
nd a psychologic nature may be distressingly real for
e patients. In these cases, a short-term regimen of
enuate can help reinforce your dietary counsel dur-
g the important early weeks of an indicated weight
ss program.

linical effectiveness

e anorectic effectiveness of diethylpropion hydro-
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ouble-blind, placebo-controlled studies attest to its
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erences: 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati,
o 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride.
Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York.
ven Press, 1978, pp. 391-404

Tenuate* ⒸIV
(diethylpropion hydrochloride USP)
Tenuate Dospan* ⒸIV
(diethylpropion hydrochloride USP)
controlled-release
AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personalty changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine*) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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New Members

Thomas E. Albus, M.D., 3133 Magnolia, St. Louis 63118, has become a member of St. Louis Metropolitan Medical Society. Dr. Albus is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1976. He specializes in orthopedic surgery.

Juergen W. Bleifuss, M.D., University of Missouri-Kansas City Affiliated Hospitals, Internal Medicine Residency Program, 2920 McGee Trafficway, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Bleifuss is a native of West Germany, received his preliminary education at Michigan Lutheran College and his M.D. degree at the University of Goettingen. He specializes in internal medicine.

Pacita C. Dy, M.D., 400 N. 4th, Apt. 614, St. Louis 63102, has become a member of St. Louis Metropolitan Medical Society. Dr. Dy is a native of the Philippines, received her preliminary education at the University of the East and her M.D. degree at Far Eastern University in 1967. She specializes in general psychiatry.

Thomas M. Foy, M.D., P.O. Box 365, Hillsboro 63050, has become a member of Jefferson County Medical Society. Dr. Foy is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at Vanderbilt University in 1978. He specializes in pediatrics.

Donald R. Frey, M.D., 803 Highway 71 West, Savannah 64485, has become a member of Andrew County Medical Society. Dr. Frey is a native of Leavenworth, Kan.,. received his preliminary education at William Jewell College and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in family practice.

David A. Goran, M.D., 7171 Delmar Blvd., University City 63130, has become a member of St. Louis Metropolitan Medical Society. Dr. Goran is a native of St. Louis, received his preliminary education at the University of Michigan and his M.D. degree at Washington University in 1976. He specializes in internal medicine.

Osvaldo Hans, M.D., 1325 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Hans is a native of Argentina, received his preliminary education at the Manuel Belgrando School and his M.D. degree at the Medical School of Cordoba in 1970. He specializes in endocrinology.

Nancy E. Holmes, M.D., 35 N. Central, Clayton 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Holmes is a native of St. Louis, received her preliminary education at the University of Kansas and her M.D. degree at the University of Missouri-Columbia in 1976. She specializes in pediatrics.

Ron Javdan, M.D., 14220 Tullytown, Chesterfield 63017, has become a member of St. Louis Metropolitan Medical Society. Dr. Javdan is a native of Iran, received his preliminary education at the Isfahan Medical School and his M.D. degree at Isfahan Medical School in 1970. He specializes in internal medicine and cardiology.

Maynard C. Jones, Jr., M.D., Western Missouri Radiological Group, 10808 E. 23rd, Independence 64052, has become a member of Jackson County Medical Society. Dr. Jones is a native of Ft. Madison, Iowa, received his preliminary education at the University of Iowa and his M.D. degree at the University of Iowa in 1967. He specializes in diagnostic radiology.

The St. Louis Surgical Society
presents
The 1981 Fall Panel Discussion
"Surgical Infection"
Guest Moderator
Hiram C. Polk, Jr., M.D.

Program Participants
Richard E. Clark, M.D.
Professor of Surgery
Division of Cardiothoracic Surgery
Washington University School of Medicine
St. Louis, Missouri

J. Joseph Marr, M.D.
Professor of Medicine and Microbiology
Director, Division of Infectious Diseases
St. Louis University School of Medicine
St. Louis, Missouri

Tuesday, November 3, 1981
5:30 P.M.

St. Louis Metropolitan Medical Society
Auditorium
3839 Lindell Boulevard
St. Louis, Missouri

Donald L. Kampschmidt, M.D., Harwood Clinic, Lebanon 65536, has become a member of Laclede County Medical Society. Dr. Kampschmidt is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in family practice.

William G. Kraybill, M.D., Ellis Fischel State Cancer Hospital, Columbia 65201, has become a member of Boone County Medical Society. Dr. Kraybill is a native of Pittsfield, Ill., received his preliminary education at Earlham College and his M.D. degree at the University of Cincinnati in 1969. He specializes in general surgery and surgical oncology.

Lawrence F. Kuhn, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Kuhn is a native of Trenton, Ill., received his preliminary education at the University of Dayton and his M.D. degree at Loyola University Stritch in 972. He specializes in psychiatry.

William (Hing-Shui) Lam, M.D., Highway 06 West, Box 428, Ellington 63638, has become member of Butler-Wayne-Ripley-Carter County Medical Society. Dr. Lam is a native of China, eceived his preliminary education at National Taiwan University and his M.D. degree at National Taiwan University in 1966. He specializes in general surgery.

Timothy P. Long, M.D., Box 308, Marthasville 63357, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. Long is a native of Tampa, Fla., received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in family practice.

Rachna Mehra, M.D., 38 Morwood La., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Mehra is a native of India, received her preliminary education at H. P. Medical College and her M.D. degree at H. P. Medical College in 1971. She specializes in pediatrics.

Irene M. Minkoff, M.D., 208 S. 5th, St. Charles 63301, has become a member of St. Louis Metropolitan Medical Society. Dr. Minkoff is a native of Mexico City, Mexico, received her preliminary education at the National University of

How do you manage anorectal barbed fire?

95% of colon/rectal surgeons surveyed* add TUCKS® pads concomitantly to preferred suppository/ointment/cream medication for best results...

In Acute Hemorrhoidal Flare-up Prescribe Anti-inflammatory

Anusol-HC®
suppositories/cream with hydrocortisone acetate...

the #1 prescribed product** for external and internal hemorrhoids and other common anorectal disorders

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The #1 premoistened hemorrhoidal pad* for added external relief and gentle cleansing of fecal residue that can irritate tender anorectal tissue.

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**Based on total prescriptions filled for hemorrhoidal preparations during the first three quarters of 1980. The *National Prescription Audit*, IMS America Ltd., September 1980.

PD-400-JA-0146-P-1 (1-81)

TUCKS® Pre-Moistened Hemorrhoidal/Vaginal Pads
Hemorrhoids and other anorectal uses—TUCKS extra-soft cloth pads allow for the gentlest possible application to tender, inflamed, hemorrhoidal tissue. TUCKS are effective cleansing pads for everyday personal hygiene. Used on outer rectal areas, they remove residue that can bring on more irritation. Pads are premoistened with 50% witchhazel, 10% glycerin USP and de-ionized purified water USP which acts as a cooling, soothing lotion to help comfort sensitive anorectal tissue.
Vaginal Uses—Comforting as an adjunct in postoperative care after episiotomies and other vaginal surgery or when relief from vaginal itching, burning or irritation is required.

ANUSOL-HC® SUPPOSITORIES
Hemorrhoidal Suppositories with Hydrocortisone Acetate
ANUSOL-HC® CREAM
Rectal Cream with Hydrocortisone Acetate
Caution: Federal law prohibits dispensing without prescription.
Description: Each Anusol-HC Suppository contains hydrocortisone acetate, 10.0 mg; bismuth subgallate, 2.25%; bismuth resorcin compound, 1.75%; benzyl benzoate, 1.2%; Peruvian balsam, 1.8%; zinc oxide, 11.0%; also contains the following inactive ingredients: dibasic calcium phosphate, and certified coloring in a hydrogenated vegetable oil base.

Each gram of Anusol-HC Cream contains hydrocortisone acetate, 5.0 mg; bismuth subgallate, 22.5 mg; bismuth resorcin compound, 17.5 mg; benzyl benzoate, 12.0 mg; Peruvian balsam, 18.0 mg; zinc oxide, 110.0 mg; also contains the following inactive ingredients: propylene glycol, propylparaben, methylparaben, polysorbate 60 and sorbitan monostearate in a water-miscible base of mineral oil, glyceryl stearate and water.

Anusol-HC Suppositories and Anusol-HC Cream help to relieve pain, itching and discomfort arising from irritated anorectal tissues. These preparations have a soothing, lubricant action on mucous membranes, and the antiinflammatory action of hydrocortisone acetate in Anusol-HC helps to reduce hyperemia and swelling.

The hydrocortisone acetate in Anusol-HC is primarily effective because of its antiinflammatory, antipruritic and vasoconstrictive actions.
Indications and Usage: Anusol-HC Suppositories and Anusol-HC Cream are adjunctive therapy for the symptomatic relief of pain, itching and discomfort in: external and internal hemorrhoids, proctitis, papillitis, cryptitis, anal fissures, incomplete fistulas, pruritus ani and relief of local pain and discomfort following anorectal surgery.

Anusol-HC is especially indicated when inflammation is present. After acute symptoms subside, most patients can be maintained on regular Anusol® Suppositories or Ointment.
Contraindications: Anusol-HC Suppositories and Anusol-HC Cream are contraindicated in those patients with a history of hypersensitivity to any of the components of the preparations.
Warnings: The safe use of topical steroids during pregnancy has not been fully established. Therefore, during pregnancy, they should not be used unnecessarily on extensive areas, in large amounts or for prolonged periods of time.
Precautions: General: Symptomatic relief should not delay definitive diagnoses or treatment.

Prolonged or excessive use of corticosteroids might produce systemic effects.

If irritation develops, Anusol-HC Suppositories and Anusol-HC Cream should be discontinued and appropriate therapy instituted.

In the presence of an infection the use of an appropriate antifungal or antibacterial agent should be instituted. If a favorable response does not occur promptly, the corticosteroid should be discontinued until the infection has been adequately controlled.

Anusol-HC is not for ophthalmic use.
Pregnancy
See "WARNINGS"
Pediatric Use
Care should be taken when using the corticosteroid hydrocortisone acetate in children and infants.
Dosage and Administration: Anusol-HC Suppositories—
Adults: Remove foil wrapper and insert suppository into the anus. Insert one suppository in the morning and one at bedtime for 3 to 6 days or until inflammation subsides. Then maintain comfort with regular Anusol Suppositories.

Anusol-HC Cream—Adults: After gentle bathing and drying of the anal area, remove tube cap and apply to the exterior surface and gently rub in. For internal use, attach the plastic applicator and insert into the anus by applying gentle continuous pressure. Then squeeze the tube to deliver medication. Cream should be applied 3 or 4 times a day for 3 to 6 days until inflammation subsides. Then maintain comfort with regular Anusol Ointment.

NOTE: If staining from either of the above products occurs, the stain may be removed from fabric by hand or machine washing with household detergent.
How Supplied: Anusol-HC Suppositories—boxes of 12 (N 0071-1089-07) and boxes of 24 (N 0071-1089-13) in silver foil strips with Anusol-HC printed in black.

Anusol-HC Cream—one-ounce tube (N 0071-3090-13) with plastic applicator.
Store between 59°-86°F (15°-30°C).
1089G010

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Mexico and her M.D. degree at the National University of Mexico in 1967. She specializes in internal medicine.

Robert J. Olk, M.D. 4949 Barnes Hospital Plaza, Suite 17413, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Olk is a native of Stevens Point, Wis., received his preliminary education at Johns Hopkins University and his M.D. degree at Rush Medical College in 1975. He specializes in ophthalmology.

Mark H. Spurrier, M.D., Box 777, Richland 65556, has become a member of Mid-Missouri County Medical Society. Dr. Spurrier is a native of Topeka, Kan., received his preliminary education at Kansas State University and his M.D. degree at Washington University in 1980. He specializes in general practice.

Toncred M. Styblo, M.D., 5518 Genesta Walk, St. Louis 63123, has become a member of St. Louis Metropolitan Medical Society. Dr. Styblo is a native of Spokane, Wash., received her preliminary education at Stanford University and her M.D. degree at St. Louis University in 1980. She specializes in general surgery.

John VerSteeg, M.D., Albany Physicians Clinic, Albany 64402, has become a member of Northwest Missouri Medical Society. Dr. VerSteeg is a native of Danforth, Ill., received his preliminary education at the University of Iowa and his M.D. degree at Northwestern University in 1970. He specializes in family practice.

David B. Walker, D.O., 11245 St. Charles Rock Rd., Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Walker is a native of Fall River, Mass., received his preliminary education at Wesleyan University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1963. He specializes in dermatology.

Joseph T. Walls, M.D., Dept. of Surgery, University of Missouri Health Sciences Center, Columbia 65212, has become a member of Boone County Medical Society. Dr. Walls is a native of Searcy, Ark., received his preliminary education at Arkansas State University and his M.D. degree at the University of Arkansas in 1962. He specializes in cardiothoracic surgery.

Miriam J. White, M.D., 510 S. Kingshighway, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. White is a native of Ontario, Canada, received her preliminary education at Smith College and her M.D. degree at the University of Cincinnati in 1977. She specializes in radiology.

Henry Kell Yang, M.D., 807 Stadium Rd., Columbia 65212, has become a member of Boone County Medical Society. Dr. Yang is a native of Philadelphia, Pa., received his preliminary education at the University of Pennsylvania and his M.D. degree at New York Medical College in 1975. He specializes in ophthalmology.

New Student Members

University of Missouri-Columbia

Curtis E. Bowman
Thomas W. Dooley
Sally J. Garhart
ane A. Higgins
Randall W. Jones
Rick B. Kappelmann
Mary S. Kendall
David A. Martin
Nathaniel G. Murphey
effrey L. Piontek
Edward C. Schuessler
Ronald S. Sinclair
anet E. Theby
Hope I. Tinker

St. Louis University

Michael R. Borts
Mary E. Cohan
Mary G. Langdon

In Memoriam

Garrett Pipkin, M.D., R.R. #2, Clinton 64735; graduate of Washington University, 1930; member of Jackson County Medical Society; aged 77; died Aug. 14, 1981.

Amos Welner, M.D., 400 Wenneker, St. Louis 63124; graduate of The Hebrew University Hadassah Medical School, 1960; member of St. Louis Metropolitan Medical Society; aged 45; died Aug. 17, 1981.

French Keller Hansel, M.D., 515 Timberwyck, St. Louis 63131; graduate of St. Louis University, 1918; member of St. Louis Metropolitan Medical Society; aged 88; died Aug. 29, 1981.

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Box Numbers — Advertisers using box numbers forbid disclosure of their identity. Written inquiries are forwarded to such advertisers. To assure prompt delivery when replying to an advertisement with a Journal box number, address letters as follows: Box (insert number), c/o Missouri State Medical Association, P.O. Box 1028, Jefferson City, Mo. 65102.

All advertisements are subject to approval by the Editorial Board prior to acceptance.

AMILY PHYSICIAN — Full-time opening in St. Louis
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424.

FAMILY PRACTICE PHYSICIAN — Immediate and future opening for well-established, very active two-physician family practice group in Suburban Kansas City, Missouri. Excellent growth potential. First year salary guarantee and liberal fringe benefit package. Modern facilities include x-ray and laboratory; located three miles from 360 bed hospital. Interested physicians should send their curriculum vitae, educational and professional experience summary to CA-Box 462, Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65102.

OBSTETRICIAN/GYNECOLOGIST — Immediate need. To join multi-specialty group in beautiful, growing resort area 85 miles south of St. Louis, serving 16,000 population. New medical building adjoins modern 60-bed, JCAH accredited hospital operated by Sisters of St. Mary. Salary negotiable. Excellent benefits. Great region for outdoor enthusiast — scenic rivers, lakes, national forests — gateway to Ozarks. AAA school system. Write Arcadia Valley Medical Center, P.O. Box 339, Pilot Knob, MO 63663 or call (314) 546-7301.

PHYSICIAN'S COMPUTER LETTER — You'll receive hand-on reviews of hardware and software, interviews with users, getting started and cutting cost guides, check lists and more. A hot-line service is included with your subscription. Eleven issues for $72 from Information and Research, 10376 Paw Paw Lake Drive, Mattawan, MI 49071.

VAIL CONDO — Two bedroom, beautiful view, kitchen, living room, fireplace and color TV. $570.00/week. Available Christmas and high season. Ralph N. Bloch, M.D., 9950 West 80th Avenue, Arvada, Colorado 80005. (303) 425-0961 or 399-9076.

COMPHEALTH — Locum Tenens. Physicians covering physicians, nationwide, all specialties. We provide cost effective quality care. Call us day or night. T. C. Kolff, M.D., President, CompHealth, 175 W. 200 S., Salt Lake City, Utah 84101. (801) 532-1200.

OBSTETRICIAN AND GYNECOLOGIST NEEDED — Board eligible or certified with primary interest in gynecology and elective pregnancy terminations is needed to join busy practitioner in St. Louis. Starting salary — $50,000+. Offering full fringe benefits including malpractice insurance, a retirement program, etc. Please send current credentials to P.O. Box 1702, St. Louis, MO 63011.

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2. How much of MDA's premium dollar goes to profit or stockholders dividends?

   Operating as a non profit mutual we charge only for claims and operations, with no profit consideration.

3. How many insureds does MDA have and how long has it been in business?

   In our sixth year of operation we are presently insuring 1400 doctors.

4. How stable is MDA?

   With assets currently in excess of 13 million dollars, renewing approximately 3 million annually and reinsured by Lloyds of London, MDA is in excellent financial shape.

5. Does MDA take just anyone wishing coverage?

   MDA has declined to insure approximately one in ten applicants in an effort to maintain a conservative underwriting policy and exclude doctors not practicing within an accepted practice profile.

6. What is MDA's attitude toward settlements and defense of claims?

   MDA cannot settle out of court without the doctors written permission. This is in keeping with our policy of aggressive defense on all claims.

7. Can MDA cancel or non-renew a doctor if he has a claim?

   We guarantee against arbitrary cancellation. It is written in our policy.

8. How can I obtain more information on how to join this company?

   The easiest way is to call toll free 1-800-492-7212, or write

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Missouri Medicine

Vol. 78, No. 11 (ISSN 0026-6620) November, 1981

Special Review Article

Trigeminal Neuralgia
and
Other Facial Pains

Thrombotic Thrombocytopenic Purpura

All Wrist Masses Are Not Ganglions

MDS

124th MSMA ANNUAL SESSION

April 1-4, 1982
Hyatt Regency Kansas City

Editor's Corner

Until Time
(Or Convenience)
Do Us Part

MISSOURI STATE MEDICAL ASSOCIATION

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Even though you may not be insured by Momedico, you still benefit from our efforts. That's because Momedico is sponsored by the Missouri State Medical Association. Much of what we do helps *all* doctors in the state. You see, we're more than an insurance company. We're also a *service* company. We publish medical alert bulletins, pursue legislative action on your behalf, and generally try to better the medical profession in Missouri.

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MSMA
NEWS ROUND - UP
November, 1981

Dr. Ritter seeks re-election to AMA Board of Trustees

The Missouri State Medical Association has announced that Hubert A. Ritter, M.D., is a candidate for re-election to the American Medical Association Board of Trustees.

Dr. Ritter, a board certified obstetrician-gynecologist in private practice in St. Louis, has served on the AMA Trustees since 1976. He is a member of the AMA Board of Trustee's Executive Committee and was president of the AMA Education and Research Foundation.

For many years Dr. Ritter has shown his commitment to organized medicine through his work on the ocal, state and national levels. He is past president of St. Louis Medical Society and is an active member of the AMA House of Delegates, the AMA Speakers' Bureau, the Missouri State Medical Association, the St. Louis Medical Society and the Missouri Medical Political Action Committee.

Dr. Ritter has also demonstrated leadership as a medical teacher. He has taught at St. Louis University School of Medicine since 1958 and served as acting chairman of the Department of OB-GYN from 1976 to 1978.

Dr. H. Ritter

Patients informed about reducing care costs

Consumers can make a difference in rising health are costs, according to a new brochure produced by the MSMA Commission on Public Affairs. Over 20,000 opies of the brochure, "You and Your Physician — Partners in Reducing Health Care Costs," have been istributed to Missouri physicians.

The brochure outlines what patients can do to maintain quality care at the most efficient price. Such topics as why health care costs are rising, what physicians are doing about the problem and how patients can assist in the effort, are covered.

Since inflation accounts for 50 percent of the increase in health care costs over the past 10 years, more outside entities, such as insurance companies and government, are working to control these costs. From past experiences, it has been shown when physicians and patients are excluded from this process there is usually a decline in physician/patient freedoms, thus lowering health care standards.

Physicians can obtain quantities of these brochures to distribute in their waiting rooms and through monthly billing statements. The brochures are being sold at cost for 10 cents each.

To order brochures or for more information, contact MSMA, P.O. Box 1028, Jefferson City, MO 65102.

JCAH manual available

The Joint Commission on Accreditation of Hospitals JCAH) has published its 1982 edition of the *Accreditaion Manual for Hospitals.* It features general adminisrative policies and procedures governing accreditation urveys, a statement of patient rights and responibilities, standards covering 24 key areas of a hospial's operations and an appendix that describes all differences between the 1981 and 1982 standards.

Companion volumes of the *PHAS Manual* (8th ediion) and *Hospital Survey Profile* are also available.

Also, the JCAH has revised its official newsletter, now called *JCAH Perspectives.* The newsletter will conain articles on the application of new standards, as well as articles on how to prepare for a successful acreditation survey. It has been updated to effectively over new and revised JCAH policies and standards, as well as current health care issues and trends effecting oluntary accreditation.

For further information, contact the Department of Publications, JCAH, 875 N. Michigan Ave., Chicago, IL 0611 (312) 642-6061.

Safety film distributed

To inform new parents about the importance of infant car restraint seats, the Missouri Department of Public Safety is offering a film, "Don't Risk Your Child's Life." The film will be distributed upon request to all established prenatal groups at no charge.

Interested physicians can obtain this film by contacting Joe Cassady, Missouri Department of Public Safety, P.O. Box 749, Jefferson City, MO 65102 (314) 751-4161.

Nominations sought for Community Service Award

Nominations are being sought for the MSMA Award for Citizenship and Community Service. The award will be presented to a Missouri physician who has made an outstanding contribution to the community for citizenship and public service above and beyond the call of duty as a practicing physician.

Nominations for the award should include a curriculum vitae and a one or two page statement of the nominee's qualifications for the award. All nominations must be received by January 10, 1982 for consideration. Send nominations to MSMA Offices, P.O. Box 1028, Jefferson City, MO 65102. The award will be presented at the 1982 Annual Meeting of the MSMA House of Delegates.

Winter tours scheduled for education and fun

Medical education and exotic travel are being offered to Missouri State Medical Association members through two INTRAV tours.

A two-week South American Adventure will offer members travel to Peru, Argentina and Brazil with optional side-trips to Machu Picchu and Iguassu. Departure from Kansas City and St. Louis is January 28 with return on February 11, 1982.

A second tour, an eight-day luxury cruise through the West Indies, will offer members visits to San Juan, Curacao, La Guaira/Caracas, Grenada, Guadeloupe and St. Thomas. Departure from Kansas City and St. Louis is February 6 with return on February 13, 1982.

Both winter tours offer physicians a comprehensive program of medical seminars. Participants in the continuing medical education program will receive hour for hour credit in Category Two for the Physicians Recognition Award given by the MSMA and the American Medical Association.

For more information contact MSMA, 113 Madison, P.O. Box 1028, Jefferson City, MO 65102 (314) 636-5151.

CPI shows lower increase in physicians fees

According to the Consumer Price Index, the rate of increase in physicians' fees has dropped lower than the rates for all services and cost of living. During the month, all services rose 1.6%, cost of living rose 1.0% and physicians' services rose .7%.

The medical care index as a whole increased .8% in September. The hospital room charges went up 1.1%, and medical care commodities went up .7%.

The monthly percentage change in the physicians' price index has decreased from 1.1% in July and .7% in August. From September, 1980 to September, 1981, the increase in physician's charges was 11.2%. During the same period the cost of living rose 11% and all services rose 15.5%.

Debbie Sievert joins staff of MSMA

Joining the Missouri State Medical Association's staff is Director of Communications Debbie Sievert. Debbie is involved in media relations and publication of *News Round-Up* and *Your Health.*

Debbie, 25, received her bachelor's degree in writing from Southwest Missouri State University and is working on her master's degree at the University of Missouri-Columbia.

Prior to coming to MSMA, Debbie was public relations manager for Four Seasons USA at Lake of the Ozarks.

MOMEDICO opens new office

Missouri Medical Insurance Company (MOMEDICO) has just opened a claims office in Kansas City.

Heading the office is Western Region Claims Representative Ed Smith. Smith, an experienced medical liability claims specialist, hospital loss control leader and attorney, is handling all of MOMEDICO's claims in Missouri's western counties. He will also be developing Regional Claims Committees and will be a part of the evolving MSMA/MOMEDICO Patient Safety Program.

"This Kansas City claim function will assure the continuance of superior claims service to MOMEDICO insureds in that part of the state," says Roger D. Detrich, executive vice president. "We ask that insureds still file their claim reports at the St. Louis office."

For assistance or more information, Smith can be reached at his new Kansas City office, at 3036 Gillham Road, or by calling (816) 931-4466.

PR Update

This month 150 radio stations around the state will be receiving four public service announcements produced by the Missouri State Medical Association. The PSAs cover frostbite, epileptic seizures, shoveling snow/heart attacks and child restraint systems.

All MSMA members are encouraged to listen for these tapes on their favorite radio stations. To increase broadcast coverage, MSMA members who are acquainted with radio station managers, should deliver PSAs in person or make a personal request for air time of these spots. To get involved in the radio station PSA program, contact Debbie Sievert, MSMA, 113 Madison Ave., P.O. Box 1028, Jefferson City, MO 65102.

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For Sneezing and
Nasal Congestion

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Each prolonged action tablet contains:

Phenylephrine Hydrochloride	25 mg
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Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0.01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours.

- Vasoconstrictor, antihistaminic actions
- Rapid and prolonged relief of nasal and sinus congestion
- Convenient b.i.d. dosage

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For Coughing With Nasal and Bronchial Congestion

RU-TUSS® EXPECTORANT

Each fluid ounce of Ru-Tuss Expectorant contains:

Codeine Phosphate	65.8 mg
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30 mg
Phenylpropanolamine Hydrochloride	20 mg
Pheniramine Maleate	20 mg
Pyrilamine Maleate	20 mg
Ammonium Chloride	200 mg
Alcohol	5%

- Vasoconstrictor, antihistaminic, expectorant actions with codeine
- Rapid relief of upper respiratory congestion and cough
- Good tasting

eport, Louisiana 71106.

e Family

SNEEZE

RU-TUSS® TABLETS

DESCRIPTION
Each prolonged action tablet contains

Phenylephrine Hydrochloride	25 mg
Phenylproponolamine Hydrochloride	50 mg
Chlorpheniramine Maleate	8 mg
Hyoscyamine Sulfate	0 19 mg
Atropine Sulfate	0.04 mg
Scopolamine Hydrobromide	0 01 mg

Ru-Tuss Tablets act continuously for 10 to 12 hours
Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues Phenylephrine and phenylproponolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings)

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria, leukopenia agranulocytosis, and thrombocytopenia may occur. Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia blurred vision, anorexia, nausea, vomiting, diarrhea, constipation, epigastric distress, hyperirritability, nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure.

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age, one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription.

COUGH

RU-TUSS® EXPECTORAN

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains:
Codeine Phosphate
(WARNING: MAY BE HABIT FORMING)
Phenylephrine Hydrochloride
Phenylpropanolamine Hydrochloride
Pheniramine Maleate
Pyrilamine Maleate
Ammonium Chloride
Alcohol

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongesto
expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic
upper respiratory congestion associated with pharyngitis, tracheitis, bronchit
allergic rhinitis Also, for the temporary relief of symptoms associated with ho
allergies, nasal congestion and cough due to the common cold.

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of c
hypertensive or antidepressant drug containing a monoamine oxidase inhil
contraindicated

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial
and in women who are pregnant.

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the
should be warned of the potential that this drug may be habit forming Ru-Tuss
torant may cause drowsiness Patients should be warned of the possible additive
caused by taking antihistamines with alcohol, hypnotics, sedatives and tranqu

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor
or operating dangerous machinery (See Warnings) Caution should be taken w
tients having hypertension, diabetes, hyperthyroidism and cardiovascular dise
Caution should also be used in patients with pulmonary, hepatic or renal insuff

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, gid
dryness of mucous membranes, tightness of the chest, thickening of bronchio
tions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hy
sion, faintness, dizziness, tinnitus, headache, incoordination, visual disturb
mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, co
tion, epigastric distress, hyperirritability, nervousness and insomnia Overdos
cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis,
tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults: 1 or 2 teaspoonfuls, orally, every 4 hours
exceed 10 teaspoonfuls in any 24-hour period
Children 6 to 12 years of age ½ the adult dose, not to exceed 6 teaspoonful
24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to e
3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as direc
a physician.

HOW SUPPLIED
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Federal law prohibits dispensing without prescription

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rolatum qs; in tubes of 1 oz and 1/2 oz and 1/32 oz
prox.) foil packets.

RNING: Because of the potential hazard of nephro-
icity and ototoxicity due to neomycin, care should be
rcised when using this product in treating extensive
ns, trophic ulceration and other extensive conditions
ere absorption of neomycin is possible. In burns
ere more than 20 percent of the body surface is
cted, especially if the patient has impaired renal
ction or is receiving other aminoglycoside anti-
tics concurrently, not more than one application a
is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

PRECAUTIONS: As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

ADVERSE REACTIONS: Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

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Photo-Comment by James W. Clawson, M.D., Springfiel

The most important thing a father can do for his children is to love their mother.
—Theodore M. Hesburgh

Editor's Corner

UNTIL TIME (OR CONVENIENCE) DO US PART

I have just finished reading a discouraging report. The 1979 divorce rate in the United States was 50% of the marriage rate. Equally discouraging was the fact that an increasing percentage of those divorces occurred between couples married for considerable time and involved children.

I thought of the recent remarks of a United States Federal Narcotics Agent with many years of experience in the field. He commented that, in all those years, he did not recall a single heroin addict who was brought up in a stable home environment. Quite a statement! I am sure there must be exceptions, but they must be rare unless he is dead wrong.

I also recalled a conversation with a high school principal who recounted his years of serious student disciplinary problems. He said that almost invariably these young people were either from broken homes or from homes in which they were grossly abused or neglected.

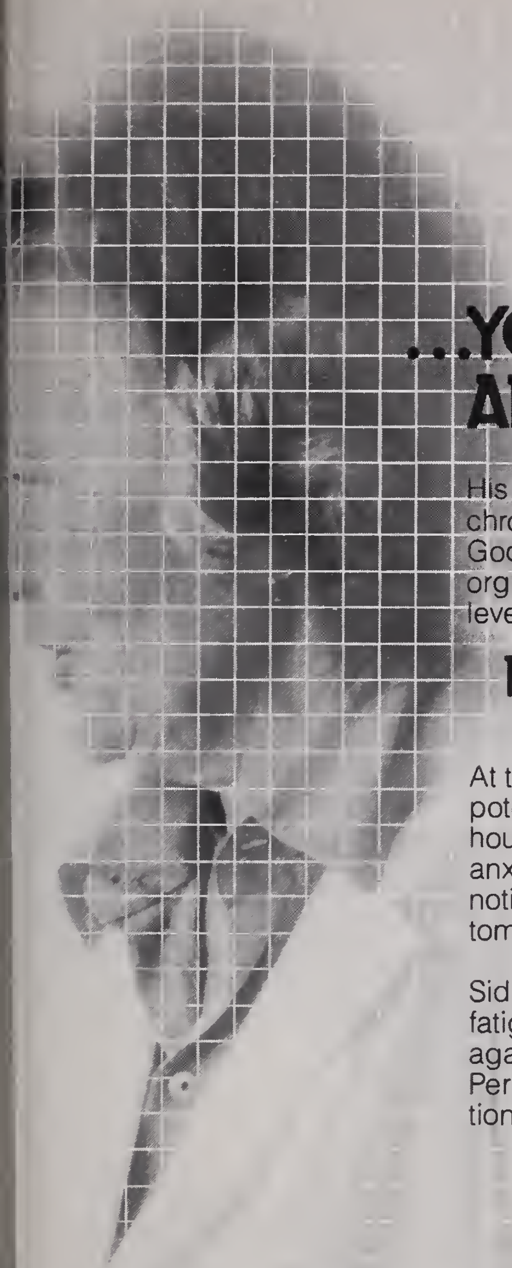
Regardless of the precise validity of these arguments, I suspect their premises are sound and I am deeply concerned about the future of our society when such a large number of the emerging generation spring from such an unstable base. If what I have related is true, I seriously question that this society can continue without catastrophic consequences. No culture can long survive when the concept of the home, its great stabilizing force, is so casually cast aside.

Oddly, I believe the heart of this problem is more economic than sociologic. Our country has had a generation of unbelievable affluence. As is human nature, the materialistic appetite has increased even more than has the means to satisfy it. This has put both husband and wife into the marketplace and the home has all too often been considered an intolerable strangulation. The moral asset of a cohesive home has become lost in all this mish-mash of cottages on the lake, extra automobiles and (God help us all) television sets in every room.

For this reason, I think the severe economic shake-out, which is not too far down the line, may be a sobering and maturing experience for America, but I do believe the time is indeed overdue for America to become more sober and mature. Vicissitude may be just what is needed.

Wilfred E. Wooldridge, M.D.
From "Conversations With Myself."

THE PATIENT THINKS
HE HAS HEART TROUBLE...



...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

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At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

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diazepam/Roche

2-mg, 5-mg, 10-mg scored tablets

BECAUSE YOU'RE CONVINCED
THE PATIENT NEEDS IT

ROCHE®

Please see summary of product information on the following page.

VALIUM®(diazepam/Roche)

Before prescribing, please consult complete product information, a summary of which follows:
Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety. Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic. Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.
Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.
Dosage: Individualize for maximum beneficial effect. *Adults:* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
How Supplied: For oral administration, Valium scored tablets—2 mg, white; 5 mg, yellow; 10 mg, blue—bottles of 100* and 500;* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

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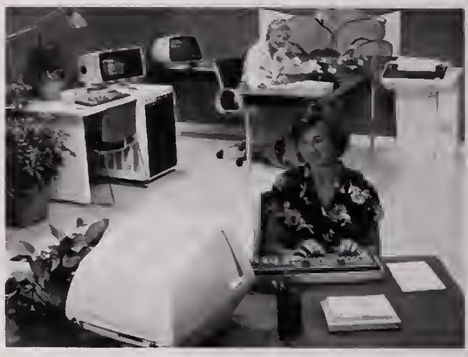

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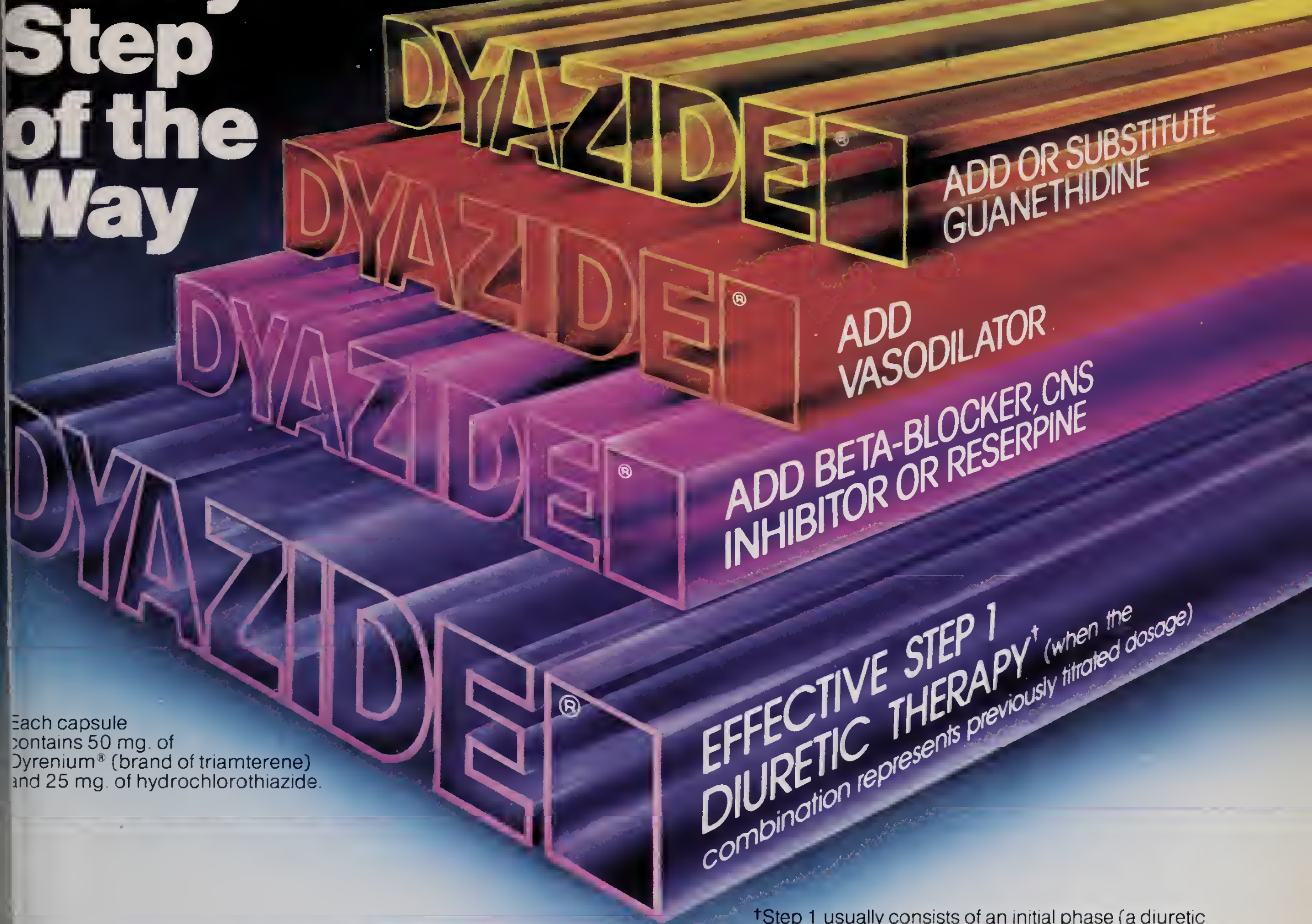
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Serum K^+ and BUN should be checked periodically (see Warnings).

efore prescribing, see complete prescribing information SK&F Co. literature or *PDR*. The following is a brief immary.

WARNING

This drug is not indicated for initial therapy of edema or hypertension Edema or hypertension requires therapy titrated to the individual If this combination represents the dosage so determined, its use may be more convenient in patient management Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant

ontraindications: Further use in anuria, progressive renal hepatic dysfunction, hyperkalemia Pre-existing elevated rum potassium Hypersensitivity to either component or ier sulfonamide-derived drugs

arnings: Do not use potassium supplements, dietary or herwise, unless hypokalemia develops or dietary intake potassium is markedly impaired. If supplementary potasım is needed, potassium tablets should not be used Hyperlemia can occur, and has been associated with cardiac egularities. It is more likely in the severely ill, with urine lume less than one liter/day, the elderly and diabetics with spected or confirmed renal insufficiency Periodically, rum K^+ levels should be determined If hyperkalemia velops, substitute a thiazide alone, restrict K^+ intake **Associted widened QRS complex or arrhythmia requires ompt additional therapy.** Thiazides cross the placental rrier and appear in cord blood Use in pregnancy quires weighing anticipated benefits against possible hazds, including fetal or neonatal jaundice, thrombocytopenia, ier adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk If their use is essential, the patient should stop nursing Adequate information on use in children is not available Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics

Precautions: Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids) Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency Watch for signs of impending coma in severe liver disease If spironolactone is used concomitantly, determine serum K^+ frequently, both can cause K^+ retention and elevated serum K^+ Two deaths have been reported with such concomitant therapy (in one, recommended dosage was exceeded, in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis and aplastic anemia have been reported with thiazides Triamterene is a weak folic acid antagonist Do periodic blood studies in cirrhotics with splenomegaly Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients The following may occur transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis 'Dyazide' interferes with fluorescent measurement of quinidine Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods Corrective measures should be instituted cautiously and serum potassium levels determined Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium Chloride deficit may occur as well as dilutional hyponatremia Serum PBI levels may decrease without signs of thyroid disturbance Calcium excretion is decreased by thiazides 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth, anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions, nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and, rarely, allergic pneumonitis have occurred with thiazides alone Triamterene has been found in renal stones in association with other usual calculus components Rare incidents of acute interstitial nephritis and of impotence have been reported with the use of 'Dyazide', although a causal relationship has not been established

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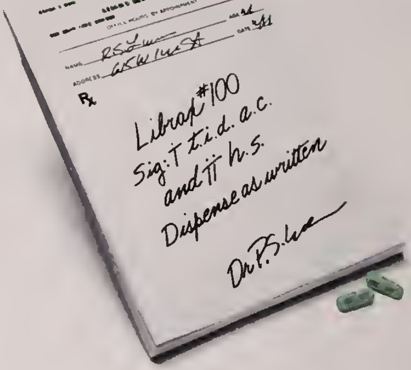

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Please consult complete prescribing information, a summary of which follows:

Indications: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective as adjunctive therapy in the treatment of peptic ulcer and in the treatment of the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis) and acute enterocolitis.

Final classification of the less-than-effective indications requires further investigation

Contraindications: Glaucoma, prostatic hypertrophy, benign bladder neck obstruction, hypersensitivity to chlordiazepoxide HCl and/or clidinium bromide

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants, and against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving) Physical and psychological dependence rarely reported on recommended doses, but use caution in administering Librium® (chlordiazepoxide HCl/Roche) to known addiction-prone individuals or those who might increase dosage, withdrawal symptoms (including convulsions) reported following discontinuation of the drug.

> ***Usage in Pregnancy:*** **Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.**

As with all anticholinergics, inhibition of lactation may occur

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially, increase gradually as needed and tolerated) Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function Paradoxical reactions reported in psychiatric patients Employ usual precautions in treating anxiety states with evidence of impending depression, suicidal tendencies may be present and protective measures necessary Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants, causal relationship not established

Adverse Reactions: No side effects or manifestations not seen with either compound alone reported with Librax When chlordiazepoxide HCl is used alone, drowsiness, ataxia, confusion may occur, especially in elderly and debilitated, avoidable in most cases by proper dosage adjustment, but also occasionally observed at lower dosage ranges. Syncope reported in a few instances Also encountered isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent, generally controlled with dosage reduction, changes in EEG patterns may appear during and after treatment, blood dyscrasias (including agranulocytosis), jaundice, hepatic dysfunction reported occasionally with chlordiazepoxide HCl, making periodic blood counts and liver function tests advisable during protracted therapy Adverse effects reported with Librax typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy, constipation Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

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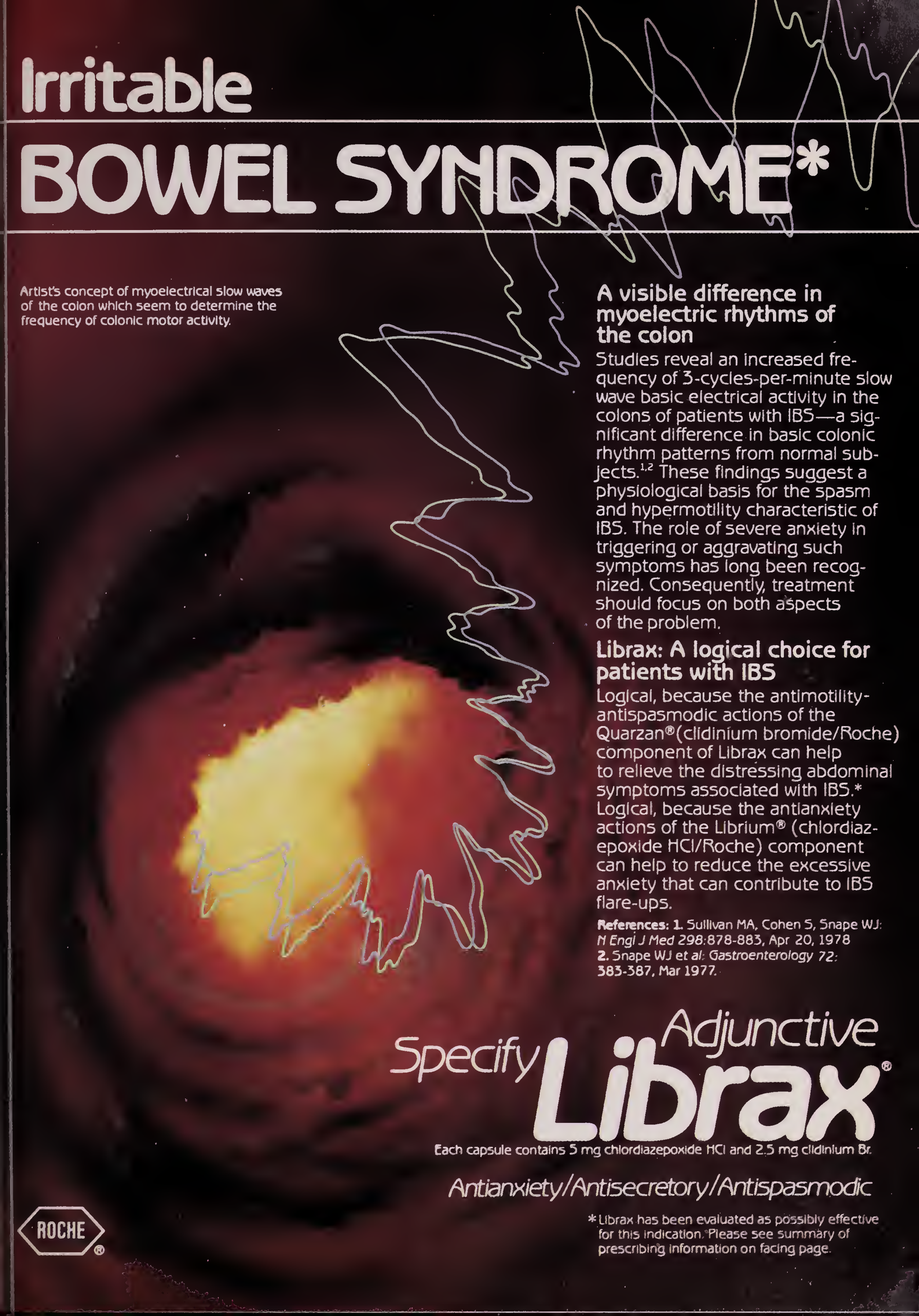

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Studies reveal an increased frequency of 3-cycles-per-minute slow wave basic electrical activity in the colons of patients with IBS—a significant difference in basic colonic rhythm patterns from normal subjects.[1,2] These findings suggest a physiological basis for the spasm and hypermotility characteristic of IBS. The role of severe anxiety in triggering or aggravating such symptoms has long been recognized. Consequently, treatment should focus on both aspects of the problem.

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References: 1. Sullivan MA, Cohen S, Snape WJ: *N Engl J Med 298*:878-883, Apr 20, 1978
2. Snape WJ et al: *Gastroenterology 72*: 383-387, Mar 1977.

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Librax®

Each capsule contains 5 mg chlordiazepoxide HCl and 2.5 mg clidinium Br.

Antianxiety/Antisecretory/Antispasmodic

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BRIEF SUMMARY

INDICATIONS AND USAGE

For the prevention and treatment of nocturnal recumbency leg muscle cramps

CONTRAINDICATIONS

Quinamm may cause fetal harm when administered to a pregnant woman Congenital malformations in the human have been reported with the use of quinine, primarily with large doses (up to 30 g) for attempted abortion In about half of these reports the malformation was deafness related to auditory nerve hypoplasia Among the other abnormalities reported were limb anomalies, visceral defects, and visual changes In animal tests, teratogenic effects were found in rabbits and guinea pigs and were absent in mice, rats, dogs, and monkeys Quinamm is contraindicated in women who are or may become pregnant If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be apprised of the potential hazard to the fetus

Because of the quinine content, Quinamm is contraindicated in patients with known quinine hypersensitivity and in patients with glucose-6-phosphate dehydrogenase (G-6-PD) deficiency

Since thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients, a history of this occurrence associated with previous quinine ingestion contraindicates its further use Recovery usually occurs following withdrawal of the medication and appropriate therapy

This drug should not be used in patients with tinnitus or optic neuritis or in patients with a history of blackwater fever

WARNINGS

Repeated doses or overdosage of quinine in some individuals may precipitate a cluster of symptoms referred to as cinchonism Such symptoms, in the mildest form, include ringing in the ears, headache, nausea, and slightly disturbed vision, however, when medication is continued or after large single doses, symptoms also involve the gastrointestinal tract, the nervous and cardiovascular systems, and the skin

Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine Quinamm should be stopped immediately if evidence of hemolysis appears

If symptoms occur, drug should be discontinued and supportive measures instituted In case of overdosage, see OVERDOSAGE section of prescribing information

PRECAUTIONS

General

Quinamm should be discontinued if there is any evidence of hypersensitivity (See CONTRAINDICATIONS) Cutaneous flushing pruritus, skin rashes, fever, gastric distress, dyspnea, ringing in the ears, and visual impairment are the usual expressions of hypersensitivity particularly if only small doses of quinine have been taken Extreme flushing of the skin accompanied by intense generalized pruritus is the most common form Hemoglobinuria and asthma from quinine are rare types of idiosyncrasy

In patients with atrial fibrillation, the administration of quinine requires the same precautions as those for quinidine (See Drug Interactions)

Drug Interactions

Increased plasma levels of digoxin and digitoxin have been demonstrated in individuals after concomitant quinidine administration Because of possible similar effects from use of quinine, it is recommended that plasma levels for digoxin and digitoxin be determined for those individuals taking these drugs and Quinamm concomitantly

Concurrent use of aluminum-containing antacids may delay or decrease absorption of quinine

Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants

The effects of neuromuscular blocking agents (particularly pancuronium succinylcholine and tubocurarine) may be potentiated with quinine and result in respiratory difficulties

Urinary alkalizers (such as acetazolamide and sodium bicarbonate) may increase quinine blood levels with potential for toxicity

Drug Laboratory Interactions

Quinine may produce an elevated value for urinary 17-ketogenic steroids when the Zimmerman method is used

Carcinogenesis, Mutagenesis, Impairment of Fertility

A study of quinine sulfate administered in drinking water (0 1%) to rats for periods up to 20 months showed no evidence of neoplastic changes

Mutation studies of quinine (dihydrochloride) in male and female mice gave negative results by the micronucleus test Intraperitoneal injections (0 5 mM kg) were given twice, 24 hours apart Direct *Salmonella typhimurium* tests were negative, when mammalian liver hemogenate was added positive results were found

No information relating to the effect of quinine upon fertility in animal or in man has been found

Pregnancy

Category X See CONTRAINDICATIONS

Nonteratogenic Effects

Because quinine crosses the placenta in humans the potential for fetal effects is present Stillbirths in mothers taking quinine have been reported in which no obvious cause for the fetal deaths was shown Quinine in toxic amounts has been associated with abortion Whether this action is always due to direct effect on the uterus is questionable

Nursing Mothers

Caution should be exercised when Quinamm is given to nursing women because quinine is excreted in breast milk (in small amounts)

ADVERSE REACTIONS

The following adverse reactions have been reported with Quinamm in therapeutic or excessive dosage (Individual or multiple symptoms may represent cinchonism or hypersensitivity)

Hematologic acute hemolysis, thrombocytopenic purpura, agranulocytosis, hypoprothrombinemia

CNS visual disturbances including blurred vision with scotomata photophobia diplopia diminished visual fields, and disturbed color vision tinnitus deafness and vertigo, headache nausea vomiting fever, apprehension, restlessness confusion, and syncope

Dermatologic allergic cutaneous rashes (urticarial, the most frequent type of allergic reaction, papular or scarlatinal) pruritus flushing of the skin, sweating occasional edema of the face

Respiratory asthmatic symptoms

Cardiovascular anginal symptoms

Gastrointestinal nausea and vomiting (may be CNS-related) epigastric pain

DRUG ABUSE AND DEPENDENCE

Tolerance abuse or dependence with Quinamm has not been reported

OVERDOSAGE

See prescribing information for a discussion on symptoms and treatment of overdose

DOSAGE AND ADMINISTRATION

1 tablet upon retiring If needed 2 tablets may be taken nightly—1 following the evening meal and 1 upon retiring

After several consecutive nights in which recumbency leg cramps do not occur Quinamm may be discontinued in order to determine whether continued therapy is needed

Product Information as of October, 1980

Licensor of Merrell*

MERRELL-NATIONAL LABORATORIES Inc
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RIVERHEAD, N.Y. (UPI) — A jury in state Supreme Court here awarded $7.1 million in damages Friday to a 10-year-old girl who suffered irreversible brain damage during a 1973 nsillectomy.

Anita

cessive dose of anesthetic during the surgery caused a heart stoppage that deprived her brain of oxygen.

Shandell said the girl was mildly retarded but educable at the time of the operation and also had a heart defect.

It was charged that the

Dr. Mal-

ylon,

form

Suit nets doctor $2 million

BALTIMORE (AP) — An eye surgeon who sue

Hopkins Hospital has been awarded $2 millio

argest malpractice judgment ever granted in Ma

Dr. James W. Lehninger, formerly of Baltim

ontended an improper diagnosis of a hip inj

ented him from practicing his profession, was

he judgment Monday by a city jury.

He told the jury he would lose an estimated

on in income because he could not pursue his

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$2 million awarded to girl

PROVIDENCE, R.I. (UPI) — A judge ord

eral government Tuesday to pay $2.1 millio

the-clock care of a paralyzed, retarded girl

but does not live" because of a Navy doct

tice.

Karla Foskey, 8, will never be able to

hold a job. She requires 24

ment of a 1-year-old

fers freq

Woman wins $9 million suit for nose job

The Associated Press

CHICAGO — A woman left a speechless quadraplegic after cosmetic su

gery on

must pay damages

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to pay $1.5 million damages to

brain damage.

that

Award tops $4 million

LITTLE ROCK (AP) — A Saline County

y has awarded a Benton couple $4.07

rsonal injury lawsuit.

Georgia and Robert Huchingson of Ben

wsuit against Little Rock Anesthesia

irco Inc., manufacturer of a ventilator

d operating rooms.

Mrs. Huchingson, 65, had surgery to re

tumor in May 1980 at St. Vincent's Infir

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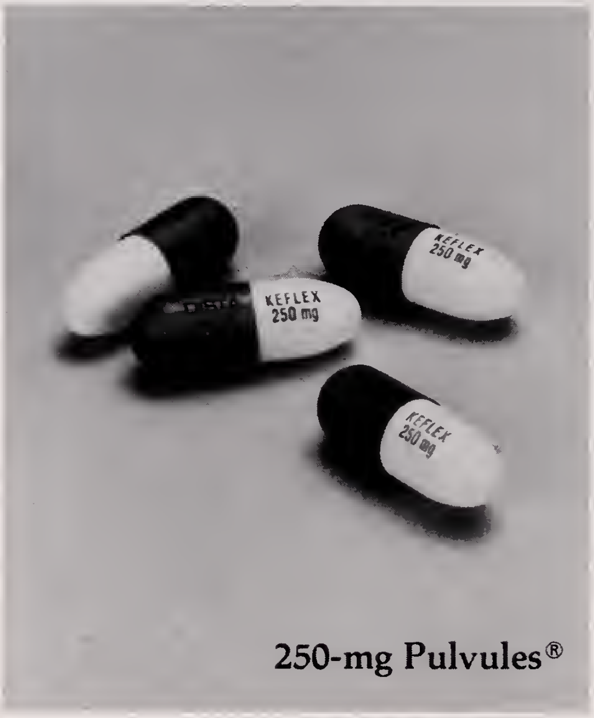

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Special Review Article

ROBERT G. HART, M.D. *and*
J. DONALD EASTON, M.D., *Columbia*

Trigeminal Neuralgia and Other Facial Pains

TRIGEMINAL NEURALGIA, or tic douloureux, is a disorder characterized by paroxysmal, unilateral facial pain without sensory loss that occurs in middle-aged and elderly people. When the strict criteria for the diagnosis are met, no investigations are needed and medical therapy can begin with an 80% likelihood of a good response. When facial pain does not meet the criteria of trigeminal neuralgia, special investigations are usually indicated to determine the cause.

Table 1 shows the four categories of facial pain disorders. This communication reviews these disorders and focuses on the clinical features and treatment of trigeminal neuralgia.

TRIGEMINAL NEURALGIA

Incidence

Tic douloureux occurs with an annual incidence of 2-5/100,000.[1, 2] It is twice as common in women as in men[1, 3] and possibly twice as common on the right side than the left side of the face.[1, 4, 5] It recurs on the opposite side of the face in 4% to 6% of patients.[1, 3] Familial trigeminal neuralgia constitutes 2% to 4% of all cases and is more often bilateral (20%).[1, 3, 4, 6] The mean age of onset is 52 years,[3, 7] but the range is ten to 94.[3] Only 5% to 10% are under the age of 40 at onset.[1, 2]

Etiology

The cause of trigeminal neuralgia is not known. An elevation of the ipsilateral petrous bone has been reported in a substantial proportion of cases, perhaps contributing to irritation of the nerve root.[8, 9] Dandy found a tortuous artery compressing the trigeminal root in 30% of the patients in whom he explored the posterior fossa for tic douloureux.[10] More recently, Janetta has reemphasized the possible role of these small tortuous vessels, claiming an 86% prevalence and good surgical results from repositioning of the vessels at craniotomy.[11, 12]

TABLE 1
CLASSIFICATION AND CHARACTERISTICS
OF FACIAL PAINS

1. Trigeminal neuralgia (tic douloureux)
    - Unilateral, brief paroxysms of severe pain in the trigeminal nerve distribution
    - No sensory loss (preserved corneal reflex)
    - Frequent trigger points or maneuvers
    - Usually over age 40 at onset
2. Atypical trigeminal neuralgia
    - Same as 1. except,
        - mild, persistent ache or dysesthesiae between paroxysms
        - minimal trigeminal sensory loss
3. Trigeminal neuropathy
    - Numbness, pain, paresthesia in trigeminal distribution, usually constant
    - Objective sensory loss
4. Other facial pain syndromes
    - Pain that does not fit the criteria of tic douloureux
    - No sensory loss in the trigeminal distribution

Trigeminal neuralgia is a common, easily recognizable type of facial pain that requires no special investigations and initially responds well to medical therapy. It is but one of many causes of pain in the face. The authors present a clinical classification and approach to the diagnosis and management of trigeminal neuralgia and other facial pains.

Dr. Hart is an Instructor and Dr. Easton is Professor and Chairman, Department of Neurology, University of Missouri-Columbia School of Medicine.

Clinical Manifestations

Tic douloureux, first adequately described in 1777,[13] describes paroxysms of excruciating pain in the cheek, lips, gums, chin and, less commonly, the forehead without sensory impairment (Table 2, Fig. 1). It is sharp, lightening-like or electric-like in quality and is invariably unilateral during an episode. The pain usually lasts a few seconds or less, but it may persist for a minute or two. It is often triggered by talking, eating or touching trigger areas on the face, usually in the distribution of the pain (Fig. 2). The trigger point rarely may be far removed, for example, on the contralateral face or a thumb or toe.[2, 3] Precipitation by cold air can occur, but is overemphasized.[3] Following a paroxysm, there is usually a refractory period of several seconds or minutes during which the trigger area is inactive.[14, 15] The frequency of attacks varies from a few yearly to hundreds daily. The attacks are most frequent during the day but may awaken the patient at night.

The pain is often said to be the worst man has to endure, and depression and suicide were frequent in the era prior to effective therapy. Patients often lose weight when their tic is precipitated by eating. Extraction of teeth is common before the nature of the pain is recognized and as many as 80% of patients with tic visit a dentist before seeing a physician.[11]

TABLE 2
DISTRIBUTION OF PAIN IN
TRIGEMINAL NEURALGIA[3]

	%
Mandibular division alone	19.1
Maxillary division alone	14.1
Mandibular and maxillary	35.9
Ophthalmic division alone	3.3
Ophthalmic and maxillary	11.5
Ophthalmic and mandibular	0.6
All three divisions	15.5

The pain distribution involves one or more divisions of the trigeminal nerve (Fig. 1), most frequently the second and third. The pain may be highly localized before diffusing over a larger area with time, often following a linear track.[3] The pain rarely extends behind the ear or below the ramus of the mandible.[3, 14, 16] Bilateral reflex tearing can occur during extreme pain.[17] Spontaneous, unilateral trigeminal numbness with recovery has then been followed by typical tic.[3, 18, 19] Coexistence of tic douloureux and the much rarer glossopharyngeal neuralgia has been reported.[3]

Bouts of tic may last months or years and spontaneously remit and recur in an unpredictable manner. Some patients experience exacerbations at the same time every year,[3, 14] and relapses may be more common in March and October and less common in February and August.[20] Bouts of tic typically increase in duration, and remissions diminish over the years.[3] Remissions occur in 16%[21] to 50%[22] of patients, with an average duration of 11½ months in one study.[21] Since remissions are longer and more frequent early in the illness, these statistics are influenced greatly by

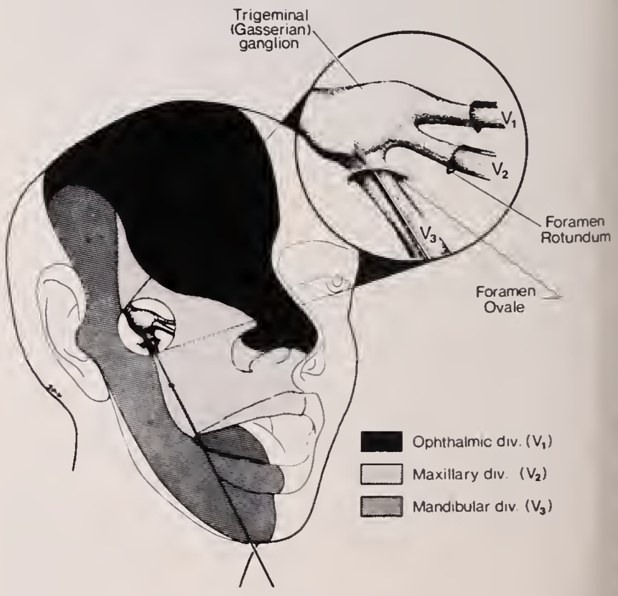

Fig. 1 Sensory distribution of trigeminal nerve. Inset shows trigeminal ganglion and a needle placed percutaneously through the foramen ovale for the purpose of thermal rhizotomy.

the duration of follow-up in the patient population being reported.[23] Spontaneous total recovery is said by some to be rare[2, 14, 24] and by others to occur in 25% of patients.[1]

The sensory examination is normal in patients with classic trigeminal neuralgia. A *normal sensory examination* is the primary feature that distinguishes trigeminal neuralgia from the trigeminal neuropathies (Table 3), some of which are associated with tic-like paroxysms of pain.

Variations in the classic picture of tic douloureux occur but should serve as a warning signal of a secondary cause. After a several-hour bout of tic douloureux, a mild, steady aching pain may be present.[14] Also, mild residual soreness with an associated minimal decrease in sensation between paroxysms has been reported in up to 10% of cases.[3, 14, 29, 30] These deviations from the classical trigeminal neuralgia have been termed atypical trigeminal neuralgia, or atypical tic douloureux, and must be differentiated from the syndrome called atypical facial pain (see below).

Diagnosis

Trigeminal neuralgia diagnosed by the criteria

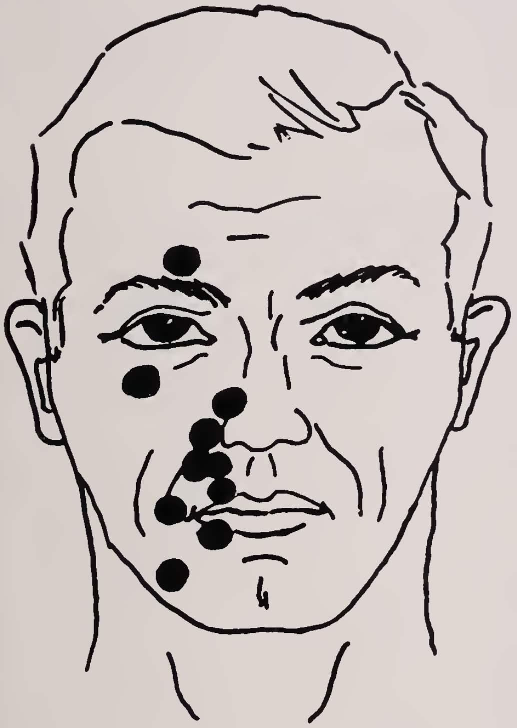

Fig. 2 Common trigger points. (From *Wolff's Headache and Other Head Pain*, by Donald J. Dalessio. Copyright 1948, 1963, 1972, 1980 by Oxford University Press, Inc.; renewed 1975 by Isabel Bishop Wolff. Reprinted by permission of Oxford University Press, Inc.)

TABLE 3
CAUSES OF FACIAL PAIN*

1. Trigeminal neuralgia (tic douloureux)
   Idiopathic (± tortuous vessels)
   Secondary
   1. multiple sclerosis[2, 3, 7]
   2. mass lesions[2, 3, 25]

2. Atypical trigeminal neuralgia[2, 3, 11, 14, 26-30]

3. Trigeminal neuropathy[31-34]
   Tumors
   1. nasopharyngeal carcinoma[35, 36]
   2. trigeminal neurinoma and Meckel's cave meningioma[35, 37-39]
   3. metastatic tumors (breast, lung especially)[36, 40-42]
   4. cerebellopontine angle tumors (acoustics, cholesteatoma)[10, 43, 44]
   5. pontine glioma
   Idiopathic[32-34, 45]
   Multiple sclerosis[18, 45]
   Other, less common causes
   1. sarcoidosis[37, 46]
   2. connective tissue disease (MCTD, SLE, PSS)[46-48]
   3. post-traumatic (including dental)[31, 36]
   4. syringobulbia[36, 49]
   5. pseudotumor cerebri[50, 51]
   6. Paget's disease and acromegaly[17, 52]
   7. postherpetic[3, 108]
   8. basilar artery or cavernous sinus carotid aneurysm[31, 53]
   9. vascular compression from small, tortuous vessels[32]
   10. amyloidosis[37]
   11. toxins: Stilbamidine,[2, 31] trichloroethylene[54]
   12. syphilis[4, 55]
   13. Dejerene-Sottas neuropathy[52]
   14. Arnold-Chiari malformation[33]

4. Other facial pains
   Minor neuralgias
   1. glossopharyngeal[3, 56]
   2. paratrigeminal (Raeder's)[57]
   3. sphenopalatine (Sluder's, lower-half headache)[58]
   4. superior laryngeal (vagal)[59-61]
   5. nervus intermedius (geniculate, Hunt's)[62]
   6. petrous[58, 60]
   7. Mondrum-Benisty syndrome[58]
   8. ciliary (Charlin's)[3, 58]
   9. vidian (Vail's)[58]
   Atypical face pain[14, 27, 58, 63]
   Temporomandibular joint pain (Costen's syndrome)[64, 65]
   Psychogenic face pain[66]
   Sinus disease[67]
   Dental pain and myofascial pain syndrome[26, 31, 63, 68-70]
   Carotodynia[15, 71-74]
   Cluster migraine (Horton's headache) and variants
   Ocular pain (includes Tolosa-Hunt, orbital tumor and pseudotumor, acute glaucoma, certain types of refractive errors, etc.)
   Toxins: digitalis intoxication[75] and nitrofurantoin[76]
   Styloid process neuralgia (Eagle's syndrome)[77]

---

* See Table 1 for criteria of classification of facial pain.

TABLE 4
PHENYTOIN IN TRIGEMINAL NEURALGIA*

		Acute* Response				Sustained Response	
Author	No.	Complete %	Partial %	No Benefit %	Interval	Satisfactory %	Not Satisfactory %
Braham & Saia[53]	20	40	30	30	—	—	—
Blom[84]	24	53		47	—	—	—
White & Sweet[2]	70	47	9	44	?	8	92

* Variable definition of acute and trigeminal neuralgia as well as regimes may explain differences in response.

in Table 1 requires no further diagnostic procedures. However, multiple sclerosis (MS) will be found in 1% to 4% of these patients.[2, 3, 5, 14] When the two diseases are associated, the patients have other manifestations of MS at the onset of the tic in 80% of cases.[2, 3, 5, 14] Combining these two figures, MS will present as tic douloureux in less than 1% of patients with tic. Other clues help to identify MS as the cause. Half of the patients with bilateral trigeminal neuralgia will have MS. Additionally, the mean age of onset of tic associated with MS is only about 40 years.[3, 7] The response to medical or surgical therapy does not distinguish MS patients with tic from the idiopathic group.[2, 78]

Rarely, tumors of the cerebellopontine angle and middle cranial fossa will present as classic tic douloureux,[3, 10, 25, 26, 43, 79, 80] but they represent a small fraction of all patients with tic douloureux.[2, 3, 26] Most of these patients develop features of other facial pains.[2] Sweet found 168 cases in the literature of "tumor or adhesion" causing tic douloureux, but it is unclear whether he restricts the definition to "classical features" or allows "less typical features," including hypesthesia and continuous burning.[27] Epidermoid tumors of the cerebellopontine angle, an uncommon benign tumor, probably have the highest prevalence of tic-like pain.[2, 79] Even in the tumor group with classic tic, paroxysms lasting several minutes[14] and an average age of onset of 23 years (97% under age 41)[79] help distinguish this group from the idiopathic variety. Aneurysms are a rare cause of trigeminal neuralgia.[2]

In summary, secondary causes constitute a small portion of patients with classic trigeminal neuralgia. Perhaps 2% to 3% have multiple sclerosis, usually with other manifestations of MS, and 0.4% have adjacent tumors.[26] Beyond a careful history and examination, studies to screen tic patients for associated diseases do not seem justified. Of the small tumor group, the vast majority have benign tumors that will progress to cause trigeminal neuropathy as well as other neurologic symptoms and signs. On the other hand, patients with trigeminal neuropathy, other facial pains and so-called tic variants usually have secondary causes.

TREATMENT

Medical Therapy

Many medical therapies have produced inconsistent benefits.[26] However, the documented resistance of tic douloureux to placebo makes these reports of some interest.[78, 81, 82] Phenytoin (Dilantin®) has provided definite benefit, although it is unsustained in most cases (Table 4).[2, 83]

Carbamazepine

Carbamazepine (Tegretol®) is the drug of choice in the treatment of trigeminal neuralgia. This medication, alone or in combination with others (Table 5), coupled with spontaneous remissions, allows successful nonsurgical management in the majority of patients.[24] Nevertheless, occasional reports indicate that carbamazepine is "seldom of material aid in prolonged treatment."[82]

Blom first reported the use of carbamazepine in trigeminal neuralgia in 1962[85] and Table 6 shows the further experience with this drug. Relief is seen within 12 to 36 hours in 80% to 90% of patients[23, 28, 84] and some improvement often occurs after the first dose.

Therapy is initiated with 100 mg twice daily and the dose is increased by 100 to 200 mg daily until pain is relieved or dose-related toxic side-effects occur (sedation, dizziness, and ataxia). Patients rarely tolerate more than 800 to 1,000 mg daily without side effects. It is administered in three or four divided doses daily, because its half-life is about 15 hours, and it is given with meals if

TABLE 5
DRUGS EFFECTIVE IN TRIGEMINAL NEURALGIA

Generic	*Brand*	*Maintenance Dosage mg*	*Cost/ day*	*Therapeutic Level μg/ml*	*Salient toxicity*
Carbamazepine	**Tegretol**	**400-800***	**.54**	**5-10**	**Dizziness, ataxia**
Phenytoin	**Dilantin**	**200-400**	**.21**	**10-20**	**Clumsiness, ataxia**
Chlorphenesin	**Maolate**	**800-2400**	**.89**	**—**	**Drowsiness**
Clonazepam	**Clonopin**	**4-6***	**.64**	**—**	**Drowsiness, ataxia**
Baclofen	**Lioresal**	**60-80***	**.90**	**—**	**Nausea, Drowsiness**

* Must be initiated in lower doses and slowly increased to maintenance dosages to avoid side effects.

it causes nausea. If mild toxicity and relief appear simultaneously at a given dosage, the dose is decreased by 100 to 200 mg daily, and several days are allowed for tolerance to the side effects to develop. This first-line drug should not be abandoned because of mild dose-related toxicity appearing early in treatment. If satisfactory results are not achieved within one week on a maximally tolerated dosage, further benefit is unlikely to occur (Table 7).

Carbamazepine and other anticonvulsants used in the treatment of tic douloureux probably act to suppress polysynaptic activity in the central or peripheral trigeminal neurons, inhibiting formation of the painful discharge. Carbamazepine is chemically related to the tricyclic antidepressants and is contraindicated in patients with known allergies to this class of drugs and in patients taking MAO inhibitors. Side effects necessitate discontinuance of the drug in 5% to 15% of patients,[23] including allergic skin rash which occurs in 3%.[23, 52, 60]

Considerable attention has been given to hematologic toxicity of carbamazepine. In the hundreds of thousands of patients who have taken this drug for epilepsy and neuralgia, only 13 reports of aplastic anemia (ten fatal) appeared up to 1975.[94] Fatal reactions have usually occurred after several months of continuous therapy and, in one instance, long after the development of an allergic rash (now considered to be an absolute contraindication to continuing the drug).[23, 52]

TABLE 6
CARBAMAZEPINE IN TRIGEMINAL NEURALGIA

		Acute Response			*Sustained Response*		
Author	*No.*	*Complete %*	*Partial %*	*No Benefit %*	*Interval*	*Satisfactory %*	*Unsatisfactory %*
Blom[84]	40	90	—	—	>6 mon	81	19
Taylor[86]	52	85	—	—	—	—	—
Spillane[87]	50	80	10	10	1-15 mon	56-84	16-44
Amols[49]	97	75	—	—	—	—	—
Taylor[88]	131	—	—	—	>1 yr	60	40
Carnaille *et al*[89]	73	—	—	—	0-2 yr	64	36
Graham & Zilkha[90]	96	—	—	—	av 2.5 yr	68	32
Rockliff & Davies[91]	19	84	—	—	—	—	—
Kiluk *et al*[92]	90	81	9	10	—	—	—
White & Sweet[2]	25	84	—	—	0-2.5 yr	48	52
Killiam & Fromm[81]	30	100		0	av 13 mon	70	30
Davis[22]	61	25	43	32	—	—	—
Nichol[78]	37	30	43	27	—	—	—
Marotta[93]	74	78	17	5	1-48 mon	65	35
Lloyd-Smith & Sachdev[21]	100	52	20	28	av 24 mon	46	64
Rasmussen & Riishede[28]	40	83	—	—	>2 yrs	60-70	—

* Series are not strictly comparable regarding definition of trigeminal neuralgia, acute versus sustained, and duration of illness with previous attempts at management.

TABLE 7
USE OF TEGRETOL IN TRIGEMINAL NEURALGIA

1. Start with 100 mg bid and increase by 100 mg daily, in divided doses tid, until:
   a. relief is obtained
   b. toxicity occurs (dizziness, nausea, ataxia, diplopia)
      1) decrease dose and wait 2 to 3 days
      2) add phenytoin 100 mg tid
2. If relief is obtained, taper by 100 mg every 3 days to the lowest maintenance dose possible
3. Continue maintenance dose for 2 to 3 months, then taper 100 mg/week, hoping for remission:
   a. if no symptoms off medication, observe until next attack
   b. if pain recurs, restart maintenance dose
4. Obtain complete blood count initially and after 2 weeks, 1 month, then monthly. Also, baseline liver function tests
   a. if WBC count is mildly decreased (3,000-4,000) at 2 weeks, observe with weekly counts. Most will return to baseline by 1 month
   b. if WBC count is markedly decreased (< 3,000) or mildly but persistently decreased after reducing the dosage of the drug, discontinue it
5. If initially ineffective or benefit unsustained, add phenytoin 100 mg tid (allow 1 week to assess results)
   a. if the combination is effective, maintain for 2 to 3 months then taper one drug at a time, hoping for remission
   b. if ineffective, consider other medical or surgical therapy

Livingston *et al* reported their experience with 255 epileptics, mostly children, on carbamazepine therapy for an average of 40 months. Blood counts were done regularly. Leukopenia occurred in 7%, usually within the first two to three months. There were 5% of patients with WBC counts transiently between 2,000-3,500 mm^3, but all returned to baseline counts without changing the medication. There were no cases in which serious hematologic toxicity required discontinuation of therapy after initial experience with transient leukopenia.[95] Allergic skin rash occurred in 2%.

Killian reported 40 patients taking carbamazepine for tic douloureux.[52] Persistent leukopenia occurred in three patients and many patients had a mild, transient leukopenia that resolved spontaneously by the end of the first month of treatment.[52] Isolated thrombocytopenia has been reported.[96, 97] The manufacturer recommends that a pretreatment, complete blood count be obtained, with an initially low white count contraindicating therapy. It recommends frequent blood counts and that the drug be discontinued if leukopenia persists. Our recommendations are outlined in Table 7.

A response to carbamazepine is not specific for tic douloureux and does not serve as a diagnostic test.[24] Trigeminal neuralgia associated with MS frequently responds to carbamazepine, also.[22] Rasmussen and Riishide found that the pain in atypical tic also responds to carbamazepine, both acutely (87%) and long-term (70% at two years.)[28] Glossopharyngeal and other neuralgias less often respond to the drug.[23] Atypical face pain (see below) does not respond to carbamazepine better than to placebo.[22, 92]

Although the majority of patients with tic douloureux initially respond to carbamazepine (Table 6), toxic symptoms at effective doses, and refractory pain, often make medical therapy less effective in the long term. However, the addition of phenytoin is frequently effective in suppressing the pain. Additionally, encouraging results have recently been reported with baclofen[98] and clonazepam,[99] alone or in combination, in patients who are refractory to carbamazepine and phenytoin (Table 5).

Blom achieved an 89% satisfactory response at two years using carbamazepine, with or without phenytoin.[84] Dalessio reported 19 patients with trigeminal neuralgia followed for five years and seven (37%) required surgery.[14] Others report a 25%[91] to 42%[92] attrition from medical therapy after one to two years. White and Sweet reported that 64% of 25 patients with tic required surgery during 2 ½ years or less of follow-up,[2] and Rushton reported that only 12% of tic patients had satisfactory relief from carbamazepine after two to three years; the remainder required surgery.[82] Most reports describe patients with tic of many months or years duration prior to referral, often after previous medical and surgical therapy failure. Consequently, the one to two year attrition probably does not reflect the effectiveness of medical therapy in the new-onset tic patient. The Mayo Clinic's population-based series, for example, contains 25% of tic patients with symptoms so mild as to not require specific therapy, with subsequent complete "recovery."[1] Also, the tic patient with relatively short bouts of intense paroxysms early in the course will most likely benefit from medical therapy.[91] It is our belief that the majority of patients with trigeminal neuralgia can be satisfactorily managed for many years with the proper use of pharmacologic agents.

Surgical Therapy

The ideal surgical procedure for treatment of tic douloureux is controversial. Alcohol or phenol injection of the peripheral nerve or trigeminal ganglion has largely been replaced by newer, better techniques.[14, 100] The complication rate of injecting these substances is relatively high.[100] Anesthesia dolorosa, the painful sensation that frequently follows loss of sensation, can be a major postoperative problem. Also, the pain frequently recurs after one to two years.[14]

Thermal differential rhizotomy is apparently the safest and least expensive of the newer procedures.[101] A needle is introduced percutaneously through the foramen ovale with the patient under local anesthesia (Fig. 1). A radiofrequency current heats the ganglion, selectively destroying small, unmyelinated pain fibers and preserving the more heavily myelinated touch fibers. The incidence of corneal anesthesia and anesthesia dolorosa is low. Complications other than loss of sensation occur in less than .5% of patients, the most common being inadvertent carotid puncture.[101] The average hospital stay is two days.[101] An 80%-90%, one-year cure rate is reported[100-102] with a 22% to 50% recurrence at two to six years.[100, 101] The procedure can be repeated in recurrent cases.

Vascular repositioning of tortuous branches of the cerebellar arteries that compress the trigeminal root can be achieved through a suboccipital craniotomy.[11, 12] This procedure has a high success rate, preserves facial sensation and, perhaps, has a lower long-term recurrence rate. The morbidity has been low.[12] Similar success with vascular repositioning has recently been reported in cases of glossopharyngeal neuralgia and idiopathic trigeminal neuropathy.[32, 56] One review comparing the thermal differential coagulation technique to vascular repositioning found a three-year success of 88% to 90% for the former and 94% for the latter.[102] One must weigh the mild loss of sensation and higher rate of long-term recurrence with thermal differential coagulation against the greater expense and potential morbidity of the open surgical technique.

Atypical Trigeminal Neuralgia

There is a subgroup of tic douloureux patients, perhaps 10% to 30%, with characteristic unilateral, paroxysmal, spontaneous and trigger-initiated pain in the trigeminal distribution that is atypical in one of two ways:[2, 3, 11, 14, 26, 27, 29, 30]

a. Tic with mild, persistent ache or dysesthesia between paroxysms
b. Tic with minimal sensory impairment

The prevalence of these atypical features depends to some extent on the examiner; the more careful and detailed the history and examination, the more likely one discovers atypical features.[27] Careful testing with a cotton whisp in an intelligent patient will more often elicit a sensory abnormality than simply touching the face with a finger or safety pin. Sensory threshold testing with calibrated hairs will show slight asymmetry in about 25% of patients believed to have classic tic douloureux.[2] Similarly, a vague paresthesia may slowly build to a sudden, painful paroxysm with mild, residual soreness or aching between paroxysms. Occasionally, inter-ictal paresthesiae may appear shortly after initiation of carbamazepine therapy, as the paroxysms are decreasing in frequency.[12]

In most cases, the natural history and response to therapy is identical in atypical and in classic tic douloureux.[12, 28] However, secondary causes of paroxysmal face pain (e.g., tumors, MS, aneurysms) are much more likely to present with these atypical variants. This necessitates further investigation (Fig. 3) before proceeding with long-term therapy in contrast to classic tic patients in whom no special studies are needed. The following case history is illustrative:

Case Report

A 48-year-old woman presented with a seven-year history of episodic facial pain involving the right cheek and jaw. The pain was described as an "electric shock" lasting up to a minute that would occur many times daily, precipitated by talking or eating. The pain occurred in two-month bouts on a yearly basis and the most recent bout was associated with a constant, mild ache in the lower face between paroxysms.

She was edentulous, without localized trigger points, but with mild dysesthesia over the second and third trigeminal divisions on the right. There was slight diminution of sensation over these areas, but results of the examination were otherwise normal.

Findings of routine laboratory studies and ESR, FANA, CSF protein electrophoresis and myelin basic protein, EEG, skull, temporomandibular joint, and sinus x-rays, CT scan and audiometry were all normal, as was that of the dental examination.

She was started on a regimen of carbamazepine and was pain-free within 24 hours. The dysesthesia and sensory deficit resolved. After three months, carbamazepine doses were gradually tapered and stopped. Two years later, identical symptoms returned and again responded to carbamazepine. She is currently asymptomatic on maintenance carbamazepine.

This patient has atypical tic douloureux.

In atypical tic douloureux patients in whom no secondary causes are found, a trial of carba-

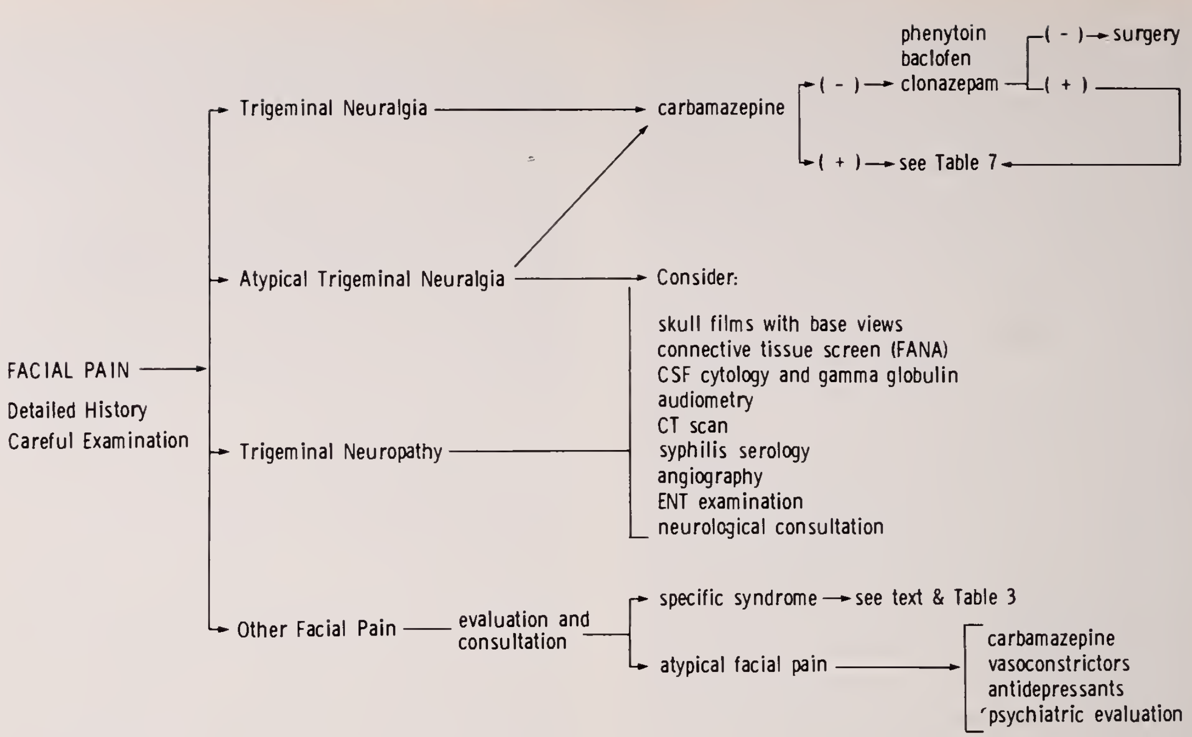
FACIAL PAIN
Detailed History
Careful Examination
Trigeminal Neuralgia
carbamazepine
(-)
phenytoin
baclofen
clonazepam
(-)
surgery
(+)
(+)
see Table 7
Atypical Trigeminal Neuralgia
Consider:
Trigeminal Neuropathy
skull films with base views
connective tissue screen (FANA)
CSF cytology and gamma globulin
audiometry
CT scan
syphilis serology
angiography
ENT examination
neurological consultation
Other Facial Pain
evaluation and consultation
specific syndrome
see text & Table 3
atypical facial pain
carbamazepine
vasoconstrictors
antidepressants
psychiatric evaluation

Fig. 3 Diagnostic and therapeutic algorithm for facial pain based on classification described in Table 1.

mazepine is indicated. However, careful follow-up of these patients is mandatory, even if the initial investigation is negative and a beneficial response to carbamazepine is obtained. Rasmussen and Riishede reported a similar success rate for carbamazepine treatment in typical and atypical trigeminal neuralgia.[28]

TRIGEMINAL NEUROPATHY

This disorder is characterized by facial numbness and constant, often mild, facial pain confined to one or more divisions of the trigeminal nerve. Paroxysms of pain can be superimposed on a steady ache and there are usually no trigger mechanisms. The hallmark is an *abnormal* neurologic examination, with sensory impairment preceding motor loss in most cases. The corneal reflex is diminished or absent in many cases and is a valuable sign of hypesthesia of the first division of the trigeminal nerve.

Table 3 lists many of the causes of trigeminal neuropathy. Careful investigation yields a specific diagnosis in most patients. Approximately 50% have a tumor, 10% have MS, 20% have one of the other listed entities and 10% to 20% have benign trigeminal neuropathy.[45, 103]

Benign trigeminal sensory neuropathy is an idiopathic disorder of the fifth cranial nerve, analogous to Bell's palsy involving the seventh nerve.[32, 33, 45] Facial numbness, often with pain, involves the lower face and slow recovery is the rule.[33] Jannetta recently reported the results of posterior fossa exploration in four cases of "idiopathic" trigeminal neuropathy.[32] In each case, a vascular loop of either the superior cerebellar or anterior inferior cerebellar artery was compressing the trigeminal root. Pain relief and sensory recovery or improvement occurred after microvascular repositioning.[32]

Thorough investigation (see Fig. 3) is indicated in all patients with trigeminal neuropathy to exclude a progressive and treatable condition.

OTHER PAINS AFFECTING THE FACE

Several other important, but uncommon, neuralgias and other facial pains occur and are occasionally confused with trigeminal neuralgia. Many of these facial pains are associated with vascular manifestations and their clear separation into a primary psychiatric, neuralgic or vascular disorder is not always possible.

Atypical facial pain (prosopalgia) is usually constant, often bilateral, not confined to the trigeminal distribution and primarily affects young women.[24] Vagueness and variability in the description of pain quality, location and precipitating factors are hallmarks. A constant, often indescribable ache is the dominant feature[14] and paroxysmal pain is uncommon. There is no precipitation by touch, swallowing or chewing and facial massage sometimes provides relief. The patient often appears morose with evident suffering. Depression is common and may be the cause or result of the chronic pain. Psychiatric study of these patients has disclosed major psychopathology that is believed to cause or contribute to the symptoms.[104]

In one report[63] of 100 patients with atypical facial pain, the causes were:

psychiatric	53%
undetermined	14%
organic	33%
migraine-like	8%
dental	8%
trigeminal neuritis	8%
neoplasm	3%
temporal arteritis	1%
other	5%

The result of the neurologic examination is normal except for a poorly localized tenderness and variable sensory loss in a nonphysiologic distribution. Dental, temporomandibular joint and otolaryngologic sources of pain occasionally cause this syndrome and should be excluded.

Treatment with carbamazepine is ineffective as is most other pharmacologic therapy.[14, 24] Vasoconstrictor agents and antidepressant drugs are occasionally helpful. Surgical therapy has been discouraging and Miller states, "Every new generation of neurosurgeons has to learn all over again the futility of aggressive therapy."[103]

Glossopharyngeal neuralgia is tic douloureux of the ninth cranial nerve. It is characterized by paroxysmal, unilateral pain in the tonsil, soft palate and auditory meatus that is precipitated by coughing, swallowing or yawning.[3, 60] While the pain usually begins in the lower throat or base of the tongue, it occasionally radiates to the tongue and gum.[3, 62] The pain typically lasts 20 to 30 seconds.[62] Trigger areas may be found on or near the ear or tonsil, but often there are none.[3, 62] Reflex bradycardia and syncope may occur.[60, 105] Glossopharyngeal neuralgia is about 1/100th as common as trigeminal neuralgia.[3] Painting the affected side of the pharynx with 5% cocaine offers temporary relief and strongly supports the diagnosis.[3] Carbamazepine is usually effective in suppressing attacks.[24, 60]

Sphenopalatine neuralgia (Sluder's syndrome; ower-half headache) consists of paroxysmal attacks of unilateral pain at the root of the nose near the inner corner of the eye that radiates to the roof of the mouth.[58] It may radiate retro-orbitally, but not above the level of the ear. Attacks typically occur several times daily or weekly and last ten to 30 minutes. They are often precipitated by sneezing or preceded by a sensation of maxillary congestion.[58] Unilateral lacrimation and conjunctival injection often accompany attacks.[58] Cocaine injection of the sphenopalatine ganglion (a peripheral autonomic ganglion located behind the posterior wall of the maxillary sinus) affords temporary relief.[58] Rarely, the pain radiates into the ipsilateral neck, shoulder and upper extremity.[14]

Vidian neuralgia (Vail's syndrome) is a variant of sphenopalatine neuralgia.[14, 58] It is a paroxysmal, unilateral facial pain attributed to "irritation" of the vidian nerve, an afferent branch of the sphenopalatine ganglion. Pain may radiate backward into the ear, nape of the neck and shoulder, and it is occasionally associated with tinnitis and vertigo.[58]

Raeder's paratrigeminal neuralgia is characterized by frontotemporal pain and oculosympathetic paresis (incomplete Horner's syndrome).[14] This combination may be due to the proximity of the ophthalmic branch of the fifth nerve and the ocular sympathetic fibers in the middle cranial fossa.[57] The migrainous type, about half of cases, is episodic and recurrent, with attacks lasting several hours or days.[57] The symptomatic type is persistent and is often due to an aneurysm or tumor.[57]

Nervus intermedius neuralgia is an otalgia which may mimic tic douloureux except for the location of pain in the external auditory canal and peri-auricular area.[62] Paroxysms may evolve into continuous pain in chronic cases. There are no trigger mechanisms. The prosopalgic type refers to a steady, deep facial pain with tender facial muscles. This rare condition cannot be reliably distinguished from atypical facial pain.

Carotidynia describes unilateral *neck* and face pain associated with exquisite tenderness of the carotid artery bifurcation.[14, 73, 74] The disorder is associated with migraine,[15, 73] but it can occur in single attacks lasting several days in middle-aged nonmigraineurs.[73] *Posttraumatic dysautonomic cephalgia* is probably caused by a similar mechanism and pupillary dilatation accompanies severe headache.[15, 72]

Postherpetic neuralgia involving the trigeminal nerve is almost always limited to the first division. There is usually a history of herpes zoster with residual cutaneous scarring and mild sensory loss. Burning dysesthesias are common, usually constant and wax and wane in intensity. Hyperesthetic areas are present but without trigger points.[3] Slow improvement occurs over several months. If pain persists beyond one year, however, it usually becomes permanent. Treatment is unsatisfactory in most cases.[24, 60, 106-108] Glucocorticoid treatment during the acute skin eruption appears to lessen the incidence of postherpetic neuralgia; since the risk of persistent neuralgia is highest in the elderly, steroids are recommended for treating severe herpes zoster in patients over 60.[108]

Temporomandibular joint dysfunction may cause pain in the face (Costen's syndrome). The discomfort is usually a unilateral, steady ache in the preauricular area that is precipitated by talking or chewing. The pain occasionally radiates into the temple, ear or teeth.[64] Less frequently, burning dysesthesias of the tongue or palate may be present.[64] There are no cutaneous trigger areas. Edentulous patients are particularly prone to this disorder.[60] The joint is tender on palpation and there is often crepitus on motion.[64]

Dental pain is a common cause of pain in the face, but it is usually easily identified. It is not paroxysmal and is often provoked by hot, cold or sweet foods and by chewing.[24] Tenderness can often be elicited by palpation or percussion of the involved tooth.

While many facial pains involve the maxillary, mandibular and gingival areas, teeth should not be extracted in hope of alleviating the pain unless disease of the teeth is clearly identified.[69]

SUMMARY

Facial pain can be clinically classified into four types. Trigeminal neuralgia is a specific idiopathic syndrome of paroxysmal, unilateral facial pain with a normal examination. It requires no special investigations and responds well to medical therapy. Trigeminal neuropathy has associated sensory loss and is usually due to an identifiable underlying disease. Atypical trigeminal neuralgia falls somewhere between these two disorders, closer to trigeminal neuralgia in most cases. In atypical trigeminal neuralgia, limited investigation and close follow-up is indicated even in the face of a good response to treatment.

The category of other facial pains is a potpourri of individually uncommon maladies that are best recognized by their specific features. The final diagnosis and management in this last group is often aided by appropriate consultation. An algorithm for managing the patient with pain in the face is provided.

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All Wrist Masses Are Not Ganglions

A Review of the Extensor Digitorum Brevis Manus

THE EXTENSOR DIGITORUM BREVIS MANUS (EDBM) is an anomalous muscle located on the dorsum of the hand or wrist. It is often misdiagnosed as a ganglion cyst or soft tissue tumor of the dorsum.[1] In their review of the literature, Ross and Troy found only 14 cases of EDBM reported to 1969, and they added one case of their own.[2] Reef and Brestin documented only 22 cases in 1975, including one case of EDBM loosely adherent to a large ganglion cyst attached to the dorsal carpal joint capsule.[3] To our knowledge, our report is the first of a ganglion cyst firmly surrounded by the anomalous EDBM muscle from which it appeared to take origin.

CASE REPORT

An 18-year-old black woman was admitted to Barnes Hospital on July 9, 1979 with a history of a swelling on the dorsum of her left wrist for three or four years. The mass was excised one year prior to this admission and recurred within one to two months. There was no operative report of the origin of the ganglion or documentation of the anomalous muscle at that procedure. About two weeks prior to admission, she fell on the left wrist and had increased discomfort from that date. The right wrist caused no problems.

On examination, she had a very large, cystic mass beneath and distal to a 2 cm well-healed, transverse dorsal wrist incision. The mass measured approximately 3 cm x 2 cm. Flexion of the wrist caused the cyst to become smaller and less tense. Extension of the wrist or of the fingers caused the mass to become more tense and prominent. The extensor tendons functioned normally without discomfort. Results of a sensory examination were entirely normal. The wrist had a normal range of motion.

This article includes a case report of a recurrent ganglion cyst surrounded by and probably arising from an anomalous extensor digitorum brevis manus muscle. The authors discuss the phylogenetic significance, diagnosis, pertinent anatomy and treatment of these accessory extensor muscles.

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Excision of a recurrent ganglion was scheduled on Aug. 9, 1979. At operation, a large cystic mass grossly compatible with a ganglion cyst was found. Dissection revealed the cystic mass to be firmly attached to and surrounded by muscle at the level of the dorsal radiocarpal ligament. The muscle was carefully dissected and was found to originate from the dorsal radiocarpal ligament, beneath the extensor digitorum communis (EDC) tendons.

The muscle belly became a single tendonous slip at the metacarpal level, inserting at the MP joint on the radial side into the EDC tendon to the long finger. On placing tension on the muscle and its tendonous slip, the long finger completely extended. The common extensor to the long finger was identified and found to be intact and functioning normally. The cyst was noted to be arising proximally within the muscle belly (Fig. 1).

The anomalous EDBM and its self-contained cyst were completely excised by dividing its origin at the dorsal radiocarpal ligament and its insertion into the EDC to the long finger. The postoperative course was uneventful.

DISCUSSION

The presence of anomalous short extensor muscles of the hand has been appreciated for more than three centuries. An anatomist, Albinus, described the EDBM in 1734 and named it "extensor brevis digiti indicis."[4] The muscle has also been called "extensor indicis brevis," "musculus extensor anomalous" and "le muscle manieux."[2] The name "extensor digitorum brevis manus," given by Wood in 1864, is in present usage.[5] The precise name used may differ according to the insertion of the anomalous muscle tendon, as will be described.

The true incidence or prevalence of EDBM in the population has not been determined. Not all cases are diagnosed clinically. Reports reveal a range between 1.1%[6] or 2%[4] to 9%.[1] The need for increased physician awareness of the existence of the anomaly in the interest of better data collection and better patient care has been emphasized.[4]

Bilaterality of the muscle was not appreciated by McGregor in 1926 in his report of one case, but Bhadkamakar and Mysorekar reported two cases with bilateral EDBM in 1960. Cases with bilateral EDBM muscles may be encountered clinically.[2-5]

EDBM occurs more often among men (70% recorded cases).[4] Manual labor may produce EDBM hypertrophy in the dominant hand, with resultant single or repetitive trauma to the muscle, including the trauma by overlying EDC tendons. This may explain male predominance.[2, 3] Such repeated trauma by the EDC tendons may also result in EDC synovitis.[3]

Phylogeny

The phylogenetic origin of the EDBM is speculative. There are two current theories. The atavistic theory described by Smith in 1896 and Bunnell in 1956 is that the EDBM is a derivative of the dorsal interosseous muscles.[7] True metacarpal extensors such as EDBM are usually absent in mammals. When present in man, however, they reveal a homologous relationship to dorsometacarpales of amphibians and reptiles.[5] Theoretically, the EDBM is a dorsal intrinsic of the metacarpophalangeal (MP) joint.[8] With passage of time, the long extensors migrated proximally, the tendons portions contacted the underlying carpal muscle bodies of the EDBM and their tendonous insertions. Gradually, the EDBM muscle bodies lost their functional significance and underwent atrophy.[5, 7]

The more popular theory of the origin of the EDBM is that a delamination of the extensor sheet of muscles occurs to produce a deeper layer already represented by the extensor indicis proprius muscle.[5] Study of EDBM innervation has lent support to the latter theory. Several authors have reported that the innervation of the EDBM in their cases was from a terminal branch of the posterior interosseous nerve. This is evidence in support of the delamination hypothesis since a EDBM with a dorsal interosseous (intrinsic) derivation should theoretically have an ulnar nerve innervation.[2, 4, 5]

Anatomy

The origin of the EDBM, although exceedingly variable, is usually the dorsal carpal or radiocarpal ligaments or capsule.[3, 4, 9] Origin from the radius, ulna or carpal bones has been described.[1, 3-6, 9]

The muscle belly or bellies then terminate in one or more fascicles or tendons. An insertion into the thumb has not been described, but for the other fingers, insertions are documented.[1, 3] Insertion into the index finger EDC tendon, the tendon of the extensor indicis proprius, index MP joint capsule or index extensor mechanism is most common.[3, 4] The EDBM in this instance is given the name "extensor indicis brevis."[3] Insertion into the EDC tendon to the long finger, as in our case, occurs with nearly the same frequency as insertion into the index finger.[2, 3, 9] Insertion is usually to the ulnar side of either muscle tendon.[4] Some authors report the origin of the muscle from carpal ligamentous structures beneath the extensor retinaculum and relate compression by the retinaculum to patient discomfort.[1-3] Incision of the retinaculum has been a method of treatment.[2]

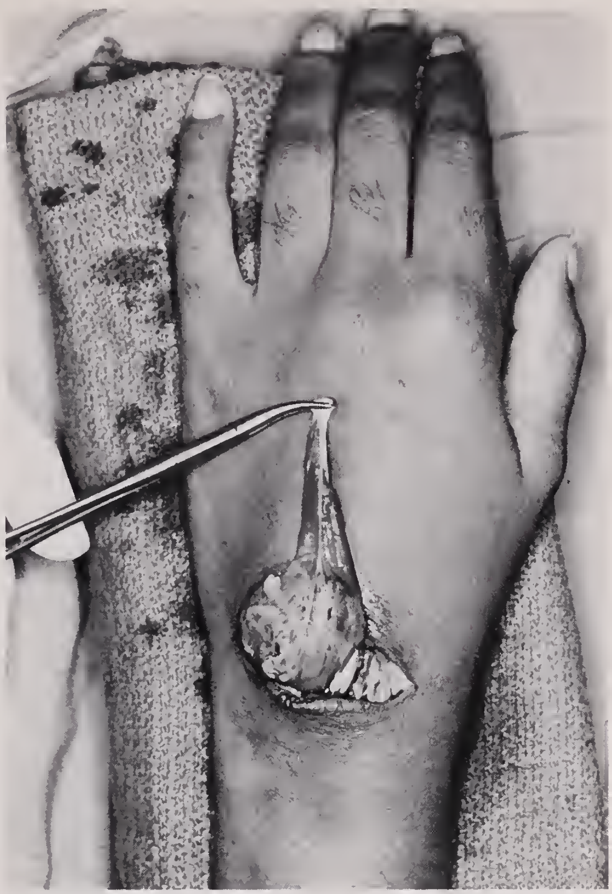

Fig. 1 **Cystic mass present within the extensor digitorum brevis manus muscle.**

Function of the EDBM is probably digital extension and radioulnar deviation to some degree. There is EMG evidence of EDBM activity during active finger extension with increased activity during active digital ulnar deviation (usual side of insertion).[4] Jones has suggested the EDBM is a dorsal intrinsic of the MP joint.[7] DeSantolo proposed the muscle functions as an extensor of the proximal (PIP) and distal (DIP) interphalangeal joints.[2] Because of its usual origin from the radiocarpal region, the EDBM is not in a mechanically advantageous location for function as a wrist extensor.[4]

Ganglions and EDBM

The ganglion is the most common tumor found in the hand.[10] Trauma may either cause the cyst or merely draw attention to the mass. Typically, the ganglion has a neck communicating directly with a joint space. There is a valve-like action whereby joint fluid is expressed under pressure into the cyst, but commonly not back into the joint space. The common locations for ganglions are dorsoradial wrist, volar radial wrist, flexor tendon sheaths at the MP joint, PIP or DIP joint, or ulnar wrist. The origin from dorso-radial wrist radiocarpal joint capsule, between the extensor carpi radialis longus and brevis (ECRL and ECRB) and the EDC tendons to the fingers, places the cyst in the typical location of the anomalous EDBM muscle.[4] Usually, ganglion cysts will transilluminate. Treatment of ganglia is by surgical excision.

References to the simultaneous occurrence of ganglion cysts and the EDBM are few. Reef and Brestin presented one such case.[3] The patient has experienced a one-year history of vague, aching discomfort in the area of a firm, non-tender, immobile mass on the dorsum of the left hand. Two successful aspirations of the cyst were documented prior to surgical exploration. A dorsal ganglion attached to the carpal joint capsule was found at surgery. A small EDBM was noted to originate at the base of the ganglion and insert into the long finger extensor mechanism. The ganglion was loosely adherent to the EDBM. One can only speculate whether the EDBM may have been a coincidental finding or an etiologic factor in the occurrence of the ganglion cyst. Both cyst and muscle were excised.[3]

Riordan and Stokes reported significant EDC tendons synovitis and fraying coincident with an underlying large EDBM to the index finger. An association was made between mechanical forces and synovial reaction. The muscle was not excised, but the dorsal carpal ligament was repositioned between the EDC tendons and the EDBM muscle.[9]

In our case, the patient was a woman; usually the patient is a man. The ganglion cyst appeared to be densely adherent to and completely surrounded by the anomalous muscle at the level of the carpus. It was directly below and not attached to the EDC tendons. There was no synovial reaction present on the EDC tendons at operation. The origin and nature of the recurrence of the cyst in this case is speculative.

Management

Excision is the treatment of choice of accessory EDBM. Ross and Troy reviewed results of treatment modalities. Expectant treatment or exploration without excision of EDBM resulted in two of five patients requiring reexploration for excision. Only one case of three treated by division of overlying extensor retinaculum was successful. Of four reported cases treated by excision, three had good relief from symptoms.[9] Our patient is asymptomatic at 18 months since operation.

Clinical symptoms of EDBM include dorsal hand swelling, discomfort or pain, often worsened with work or use. Symptoms can be caused by tenosynovitis,[9] impingement of muscle on exostosis[11] or compression by extensor retinaculum.[1, 7] Symptoms are not necessarily related to age or occupation.[4]

Diagnosis of EDBM may be diffiult and is often made intraoperatively.[2] The EDBM may simulate a ganglion or soft tissue tumor.[1] It may occur with a ganglion cyst, as in our case.[3]

Typically, the EDBM is longitudinally oriented, more fusiform than spherical in shape and movable in radial and ulnar directions.[2, 3, 7] The mass may be soft and well-defined, semifluctuant[11] or nonfluctuant.[2] There may be tenderness on palpation. Failure to transilluminate the cystic mass may be helpful.[1] Active or passive extension of the fingers may increase the firmness, size or pain of the mass.[1, 3, 4] X-rays are of no diagnostic benefit.[3, 5, 9] An EMG may be diagnostic: on extension of the suspected finger of insertion, active muscle action potentials indicate normal muscle tissue at the point of the dorsal hand mass.[3, 5] An anomalous EDBM should be considered in the differential diagnosis of a dorsal hand or wrist mass.

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(Continued on page 700)

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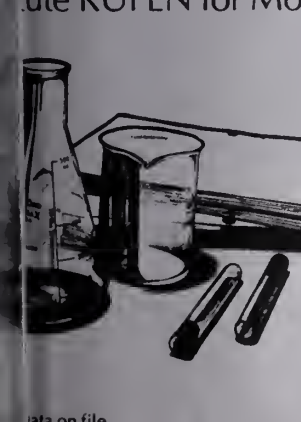

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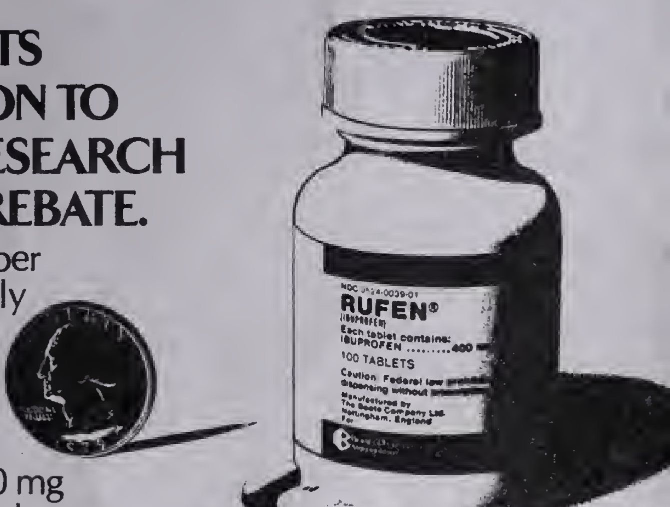
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In patients with active peptic ulcer and active rheumatoid arthritis, nonulcerogenic drugs, such as gold, should be attempted. If Rufen must be given, the patient should be under close supervision for signs of ulcer perforation or gastrointestinal bleeding.

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Fluid retention and edema have been associated with Rufen; caution should be used in patients with a history of cardiac decompensation.

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*Incidence 3% to 9%.

Incidence less than 1 in 100

Gastrointestinal: gastric or duodenal ulcer with bleeding and/or perforation, hemorrhage, melena. **Central Nervous System:** depression, insomnia. **Dermatologic:** vesiculobullous eruptions, urticaria, erythema multiforme. **Special Senses:** amblyopia (see PRECAUTIONS). **Hematologic:** leukopenia, decreased hemoglobin and hematocrit. **Cardiovascular:** congestive heart failure in patients with marginal cardiac function, elevated blood pressure.

Causal relationship unknown

Gastrointestinal: Hepatitis, jaundice, abnormal liver function. **Central Nervous System:** paresthesias, hallucinations, dream abnormalities. **Dermatologic:** alopecia, Stevens-Johnson syndrome. **Special Senses:** Conjunctivitis, diplopia, optic neuritis. **Hematologic:** hemolytic anemia, thrombocytopenia, granulocytopenia bleeding episodes. **Allergic:** fever, serum sickness, lupus erythematosus syndrome. **Endocrine:** gynecomastia, hypoglycemia. **Cardiovascular:** arrhythmias (Sinus tachycardia, bradycardia, and palpitations). **Renal:** decreased creatinine clearance, polyuria, azotemia.

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RON FARRIS, M.D., PAUL G. KOONTZ, JR., M.D.
and JAY T. PETERSON, M.D., *Kansas City*

Thrombotic Thrombocytopenic Purpura

Case Reports

THROMBOTIC THROMBOCYTOPENIC PURPURA (TTP) is a rare disease characterized by the following: thrombocytopenia, microangiopathic hemolytic anemia, renal disease, fever and fluctuating neurological manifestations. Its course is often rapidly fatal.

Since Moschowitz's first description of this entity in 1925,[1] more than 400 cases have been reported. Since then, many forms of therapy have been utilized, including high dose steroids, splenectomy, antiplatelet drugs, antimetabolites, exchange transfusions, heparin, dialysis and streptokinase. Recently, Byrne showed the effectiveness of exchange transfusions to be due to a plasma factor that was replaced and not due to the removal of a toxin. He reported five patients in whom clinical remission was obtained after plasma infusion alone.[2]

Five patients were diagnosed for TTP and were treated at our institution between March, 1977 and March, 1979. Multiple treatment methods used included plasma infusion, exchange transfusions or both. Three of five patients initially responded and two of the five have maintained clinical remission for one and two years, respectively. Our experience with each is described.

CASE REPORTS

Patient #1 (Table 1)

Ten days prior to admission, this 27-year-old white woman began to complain of LLQ cramping, diarrhea and vomiting. She was admitted with dehydration, hemolytic anemia and thrombocytopenia. Her hemoglobin level was 7.3 gm/100 ml and platelet count was 19,000/cu mm. Her condition deteriorated over the next 36 hours and she was transferred to St. Luke's Hospital. Emergency splenectomy was performed. She then received 250 mg of hydrocortisone sodium succinate (Solu-Cortef) intravenously q 6th, 250 mg of dextran-70 intravenously q 12h; and aspirin. Postoperatively, the patient developed oliguria, renal failure, multiple seizures, lethargy and psychosis. An 8 unit exchange transfusion and 2 units of fresh frozen plasma were given. Dialysis was begun because of increasing renal failure. She was intubated for respiratory support. Multiple seizures and coma followed. Cardiopulmonary arrest and death occurred on the 12th postoperative day.

Patient #2 (Table 1)

This 45-year-old white woman was first suspected of having TTP in 1960 when she developed lethargy, disorientation, confusion and became obtunded. She did not respond to simple commands, and she developed right facial weakness and seizures. Results of the patient's LE preparation and Coombs test were negative. She had petechiae and thrombocytopenia. She was treated with aspirin, chloroquin, and 25 mg of prednisone four times daily for six months. She remained asymptomatic until 1968 when she was admitted for anemia, menorrhagia and thrombocytopenia. She improved after blood and platelet transfusions and x-ray treatment to the uterus for recurrent menorrhagia. In 1973, the platelet count was 56,000/cu mm. Treatment then consisted of 6-mercaptopurine, prednisone, folic acid, B-12 and azathioprine (Imuran). The platelet count increased to 106,000/cu mm. She received prednisone continuously until November, 1977.

Platelet count on admission was 20,000/cu mm, hemoglobin level was 9.2 gm/100 ml and the peripheral smear showed schistocytes. Bone marrow aspiration showed erythroid hyperplasia and increased megakaryocytes. While in the hospital, the patient developed superficial rectal ulcerations and bleeding that required transfusions of whole blood. A splenectomy was performed and a histological examination of the spleen showed multiple thrombi consistent with TTP. Platelet count rose from 31,000/cu mm on the first

Thrombotic thrombocytopenic purpura (TTP) is a rare disease characterized by the pentad of thrombocytopenia, microangiopathic hemolytic anemia, renal disease, fever and neurological manifestations. Its course is often rapidly fatal. Five patients were treated for TTP from March, 1977 to March, 1979 at St. Luke's Hospital. The author describes the experience with these patients and current concepts of management.

The authors are from St. Luke's Hospital.

TABLE 1

	Case 1	*Case 2*	*Case 3*	*Case 4*	*Case 5*
Temperature	102	100.6	102.2	102.6	104.6
Hgb 1 gm	7.3	8.7	8.3	8.3	6.6
Platelets/mm³	19,000	20,000	19,800	9,000	6,000
Creatinine	1.2→9.3	2.0	1.5	2.3	1.7
T. bilirubin	1.9	1.4	3.0	1.8	3.0
Reticulocyte	3.1%	7.8%	2.4%	7.9%	2.9%
UA	Protein Neg. RBC 6-10 WBC 11-20	Protein 3+ RBC 6-10 WBC 6-10	RBC 11-20 Hylane Casts Granular Casts Protein +3	Protein 1+ RBC's many	3+ Protein RBC 6-10 WBC 6-10
Palpable spleen	Yes	No	No	No	No
Neurodeficits	Seizures, psychosis, coma	Coma, 1960, seizures	Grand mal seizures, confusion, lethargy	Rt side — paresthesias, weakness, aphasia, coma, seizures	Weakness, lethargy, obtundation
Rx	Splenectomy, steroids, dextran, dialysis, ASA, exchange transfusions, whole blood	Steroids, splenectomy, mercaptopurine, whole blood	ASA, steroids, splenectomy, exchange transfusions, dipyridamole, dextran, dilantin whole blood	Splenectomy, steroids, exchange transfusions, whole blood, ASA, dilantin, phenobarbital	Steroids, splenectomy whole blood
Outcome/flu	Died	Dismissed. No recurrence two years	Dismissed. No recurrence one year	Died	Died

postoperative day to 90,000/cu mm three weeks later. Upon being dismissed from the hospital, she was given 7.5 mg of prednisone three times daily for six months. She has had no recurrence for two years and now receives no steroids.

Patient #3 (Table 1)

This 31-year-old white man complained about four days of fever followed by behavioral confusion and numbness on the left side. On admission, the patient's hemoglobin level was 8.9 gm/100 ml and platelet count was 15,000/cu mm. On physical examination, he had multiple ecchymoses and petechiae. The peripheral smear showed schistocytes. A diagnosis of TTP was made and the patient was treated with aspirin, 100 gm of dipyridamole q 6h, 200 gm of Solu-Mechol administered intravenously every six hours. The patient was given transfusions and platelet packs. Splenectomy was performed on the second hospital day. On the second postoperative day, treatment was begun with intravenous phenytoin (Dilantin) and dextran-70 because of grand mal seizures and deteriorating mental status. Exchange transfusions were performed at that time. He improved and the platelet count was 106,000/cu mm on the 11th postoperative day. Posthospital treatment consisted of prednisone and Dilantin. He has had no recurrence for one year.

Patient #4

This 53-year-old man was admitted with parasthesias on the right side, weakness and expressive aphasia. He complained of a four-day history of flu-like symptoms. His symptoms cleared within 24 hours. At that time, he was noted to have a left carotid bruit. Admission laboratory studies indicated hemolytic anemia and throbocytopenia. A CT scan of the head was normal. The peripheral blood smear contained schistocytes. The bone marrow showed erythroid hyperplasia with increased megakaryocytes. A diagnosis of TTP was suspected.

The patient then became aphasic and comatose and developed seizures. Splenectomy was done and he received 125 mg of Solu-Medrol intravenously q 6 h; aspirin; Dilantin; phenobarbital; and nine units of whole blood. He was awake and alert on the third postoperative day when his platelet count was 45,000/cu mm. During the following three days, he developed jaundice, decreasing platelet counts and gastrointestinal bleeding. He received a 10 unit exchange transfusion. On the ninth postoperative day, the patient had a cardiopulmonary arrest and died. Histological findings at postmortem examination were consistent with thrombotic thrombocytopenic purpura.

Patient #5 (Table 1)

This 74-year-old white woman developed an upper respiratory infection and diarrhea three weeks prior to admission. One week prior to admission, she complained of headaches, weakness and lethargy with dyspnea on exertion. She was admitted with a hemoglobin level of 6.6 gm/100 ml, platelet count of 6,000/cu mm and hematuria. She was initially treated with platelet transfusion and 20 mg of prednisone four times daily, but she failed to respond. Two days after admission, splenectomy was done and she was given 100 mg of dexamethasone (Decadron) intravenously. Postoperatively, the patient became unconscious. Despite 10 units of whole blood, her hematocrit and platelet count decreased. She developed atrial fibrillation that necessitated digitalization. On the fourth postoperative day, the patient had a cardiopulmonary arrest following multiple arrhythmias and died. A histologic study of the spleen and postmortem examination were consistent with TTP.

In our series, essentially all of the treatment modalities were applied to the management of acute fulminating thrombotic thrombocytopenic purpura. A third patient responded initially to splenectomy, steroids, aspirin and an infusion of nine units of plasma. However, he relapsed a few days later and failed to respond to a 10-unit whole blood exchange transfusion. These data are clearly not conclusive concerning any one treatment modality, and a substantial number of patients succumbed even with a combined therapeutic approach.

Byrne has recommended infusion of a full plasma volume equivalent over the first 24 hours, and the infusion of three units of plasma daily until full remission has been obtained. Our patients received whole plasma (as whole blood transfusions or exchange transfusions) equivalent to the plasma volume, but they were not continued on daily plasma infusions until remission was obtained. We may have improved our success rate by continuing daily plasma infusions until remission was obtained in our three fatal cases.

Because of the fulminating and often fatal course of this disease, it may be necessary to sequentially employ all acceptable treatment regimens. The most productive and least toxic regimens should be employed initially. This would include plasma and/or whole blood infusions, the usage of antiplatelet drugs. If no response is forthcoming in 24 to 72 hours (depending on the stability of the patients) steroids, plasma exchange would then be necessitated. Splenectomy should be held for the court of last resort due to its lower yield of responsiveness as well as the obvious risk of a major surgical procedure in a severely ill patient.

Summary

Five persons were treated for TTP at our institution during a two-year period. Multiple treatment modalities included high-dose steroids, early splenectomy, antiplatelet drugs, plasma (whole blood) infusion and exchange transfusions that resulted in a 60% initial remission rate and a 40% sustained clinical remission rate.

Discussion

Since its original description in 1925, more than 400 cases of thrombotic thrombocytopenic purpura have been reported in the literature. The etiology of this disease is unknown. An infectious agent has been postulated.[3, 4] Autoimmune diseases,[5, 6] allergic reaction[7, 8] and toxic causes have been suspected, but they are difficult to prove. TTP was reported nonsimultaneously in two sisters during late pregnancy by Fuchs in 1959[9] and has been associated with pregnancy in a number of reports.

The peak incidence is usually in the third decade of life with women affected slightly more often than men. Initial symptoms are often vague. Chief complaints in our patients included headaches, upper respiratory infection, lethargy, fever, weakness and gastroenteritis. All of our patients eventually developed fever, microangiopathic hemolytic anemia, thrombocytopenia, renal dysfunction and fluctuating neurological manifestations. The diagnosis can be confirmed by demonstrating microscopic thrombotic vascular occlusions by hyaline thrombi in the microcirculation.

Laboratory values showed microangiopathic hemolytic anemia, thrombocytopenia and hematuria in all of our patients. All bone marrow aspirates showed hypercellularity with an increased number of megakaryocytes and erythroid hyperplasia. Two of the three patients who died had platelet counts of less than 10,000/cu mm.[7] This has been reported to be of possible prognostic significance.

An evaluation of therapy remains controversial. The rarity of the disease, its obscure pathogenesis and often fulminent course make the study of individual modes of treatment difficult. The exact role of splenectomy is unclear. Intrasplenic phagocytosis causing damage to the platelets resulting in vascular occlusion in the microcirculation has been suggested as one possible etiology of TTP.[10] Of 62 patients who survived three months or more from 340 cases reviewed, 70% had received splenectomy and steroids.

The usefulness of glucocorticosteroids also is unclear. Remissions have been reported when only such steroid therapy was employed.[11] High dose glucocorticosteroids are included with most other treatment regimens, however, which makes the contribution of steroids alone difficult to evaluate.

Antiplatelet drugs, including Dextran 70, aspirin, sulfinpyrazone and dipyridamole, have also been used singly or in conjunction with other treatment modalities.[12] It is not known whether the pathogenesis in TTP is due to platelet adherence to a damaged endothelium or to platelet aggregation. A combination of antiplatelet drugs with their diverse mechanism of actions has often been used in the hope of interfering with the specific platelet activating mechanism involved. In a review of five patients with chronic, relapsing TTP, Cuttner recommended agents that interfere with platelet aggregation — either dextran or dipyridamole, with or without corticosteroids.[13]

The exchange transfusion was first reported in 1959. The mode of action of exchange transfusions has been assumed to be due to the removal of an antibody or antigen antibody complex. However, Byrne has demonstrated that the effectiveness of exchange is due to some replaced plasma factor which is stable in outdated plasma. He recently reported a number of clinical remissions in patients given high-volume plasma infusions only, reserving exchange transfusions for those patients in which fluid overload was a concern.[2]

All five of our patients received splenectomy, high-dose steroids and either whole blood transfusions or exchange transfusions or both. In this series of five patients, two survived and have remained in remission. One of these received multiple antiplatelet drugs. The other patient experienced chronic relapsing TTP and has had no recurrence since her splenectomy two years ago. In all three treatment failures the patients received splenectomy, steroids and whole blood or exchange transfusions. Two of the three treatment-failure patients received antiplatelet drugs.

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Wrist Masses

(Continued from page 696)

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—Author unidentified.
From H. L. Mencken's "A New Dictionary of Quotations"

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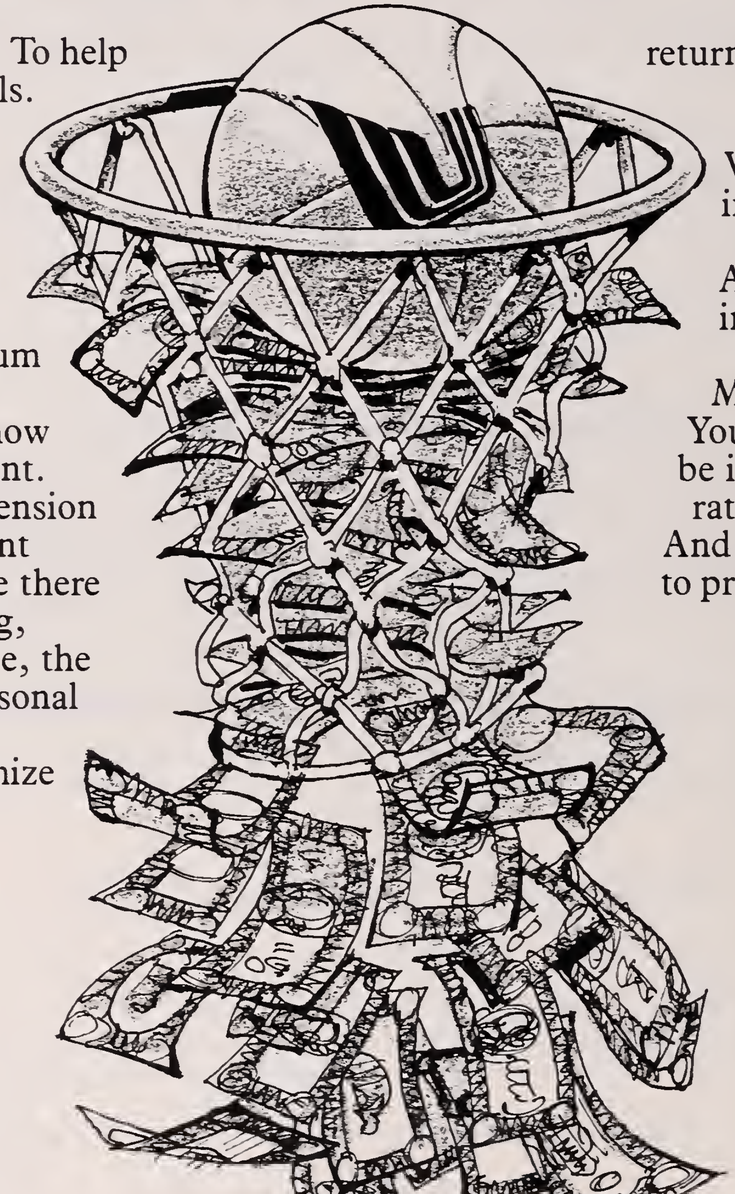

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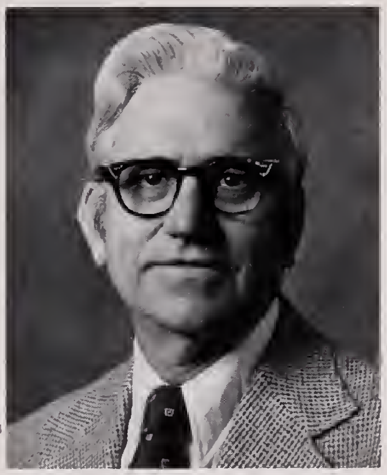
President's Message

Health Care Costs

The common question we all hear each day is "why does health care cost so much?" Many people point an accusing finger toward us as physicians as being the cause, because people tell us that only we can admit patients to the hospital and order tests on them and that is what costs so much. There is some merit to this, but the cost of physicians' services is running less than 20% of total health care costs and cannot be the initiating cause since this percentage would need to have an inordinate rise before it really would become significant.


Eugene T. Hansbrough, M.D.

Probably one of the basic reasons health care does cost so much is because we live in an affluent society. People demand good things. They demand beautiful hospitals and all available services, and they feel quite strongly that all the expensive tests should be made to be sure everything is all right. The medical legal threat increases ordering of unnecessary tests on occasion, but even this comes down to consumer's choice.

We are living in a society in which all of these things are expected and we, as servants to our patients, have no choice but to order them. Consumers need reeducation. Patients need to realize that when their insurance pays for everything, their insurance premiums go up. Unfortunately, this means little to many people. It means the employer's insurance goes up or that the cost of Medicaid or Medicare goes up, but it is nothing out of their own pockets. Unfortunately, it is often true that there is nothing out of their pockets. The society as a whole is paying the load.

Physicians need to be aware of the high cost of care. Look at a bill for one of your patients. Ask the patient to bring you a copy of his bill. Look it over and study it. Try hard to practice good medicine without helping run the cost of care too high.

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SHAPE UP FOR LIFE!

This is the message members of the American Medical Association Auxiliary and the MSMA Auxiliary have been sending to people across the nation for the past two years via pamphlets, posters, lapel buttons, television and radio announcements and programs designed to help people improve their health.

Mrs. Jerry Meyer
President

We chose the "Shape Up" theme because it is catchy and expresses the important idea we're trying to get across to everyone. If people will pay attention to planning a balanced diet, exercising and coping with problems, they will be healthier and live fuller lives.

The third year of the "Shape Up For Life" campaign is focused on stress. One thing that influences our mental and physical health most today is the amount of stress under which we live. Stress may be negative, such as when there is a death in the family, divorce or personal injury. It also may be positive — a new baby, marriage, holidays. Whatever the cause of the stress, we experience it all the time.

So, what can we do about stress? We can learn to manage it. We can learn to flow with problems we can't solve. We can clarify our values, decide what we really want out of life and let the unimportant things go by. Most importantly, we must refuse to make drugs a substitute for stress management. Since we can't live without stress, we must learn to live with it. Friend or foe, we must learn to manage it.

Eat the proper foods, exercise regularly, manage stress! To those of us who are Auxiliary members, the "Shape Up For Life" message is vital to good health.

Many of our county auxiliaries in Missouri have been involved with projects that emphasize all three of these important areas. If you are interested in obtaining further information and material, please contact Mrs. Thomas R. Glatter, 12612 Cherokee Lane, Shawnee Mission, KS 66202. She is our MSMA Auxiliary Health Education Chairman.

medical melange

Notes of interest from Here . . . . and There

Dr. James Baker, who has been described as having been involved with University of Missouri-Columbia athletics longer than any other man, served as Grand Marshal for this year's Tiger Football homecoming parade in Columbia on October 31. A football player from 1927 to 1930, Dr. Baker served as the football team's first doctor, beginning in 1938. He treated the team members for 40 years. Dr. Baker was in private practice for 40 years and also was a general surgeon at Boone County Hospital. He retired from practice in 1977. He returned from service in France, Belgium and Germany in World War II with a Purple Heart and Bronze Star. Dr. Baker has received numerous tokens of recognition and citations of merit from the Alumni Association, School of Medicine and the Tiger football team.

Dr. R. Emmet Kelly has been named general chairman of the 1982 Archdiocesan Development Appeal by Archbishop John L. May, St. Louis. Last year's drive, which Dr. Kelly also headed, raised a record pledged total of $4.2 million. Dr. Kelly is medical director at Consolidated Aluminum Co. and an associate physician at Sutter Clinic. The appeal is the largest source of operating income, capital improvements money and support for numerous Roman Catholic services and pastoral programs.

Dr. R. S. Hollingsworth has retired after 52 years in the practice of medicine in Clinton. After completing his medical training at the University of Kansas, Dr. Hollingsworth interned at St. Luke's Hospital in Kansas City. An extensive feature story in the *Clinton Democrat* cites Dr. Hollingsworth's many civic activities and contributions. As a Major in the Missouri State Guard, he stated that "one of the highlights of my service was providing medical support for the visit of Winston Churchill to Westminster College (Fulton) when he made his famous 'Iron Curtain' speech."

Armand E. Brodeur, M.D., St. Louis, chief of radiology at Cardinal Glennon Memorial Hospital for Children in St. Louis, has been named to the Low-level Radioactive Waste Task Force by Gov. Christopher Bond for a term of one year.

Dr. L. R. Seabaugh of Cape Girardeau became the seventh honorary member of the Friends of St. Francis on October 24 in a ceremony as part of St. Francis Medical Center's fifth anniversary dinner. Dr. Seabaugh began his practice in 1951 and was a member of the St. Francis staff from that time until his retirement. The Friends of St. Francis honor is bestowed on an individual who contributes highly to the health care field in Cape Girardeau and the surrounding areas.

MSMA Members Receive Physician's Recognition Award

Twenty-four MSMA members qualified for the MSMA-AMA Physician's Recognition Award during the periods of August and September, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in Missouri Medicine as they are received from the AMA.

Eugene A. Bauer, St. Louis
William R. Bynum, Columbia
Daniel C. Campbell, Mount Vernon
Edward D. Campbell, Cape Girardeau
Milamari A. O. Cunningham, Columbia
Raymond O. Frederick, St. Louis
Sigmund Gundle, Kansas City
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The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category 1 credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in MISSOURI MEDICINE. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

University of Missouri School of Medicine
Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
Contact: **William D. Bradshaw, M.D.**

(1982)	
Jan. 6-9	Diagnosis and Treatment of Headache (Camelback Inn, Scottsdale, Ariz.)
Feb. 15-17	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10-11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29-30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	A Working Conference on Authority, Responsibility and Organization
Apr. 22-23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
Contact: **Ronald G. Evens, M.D., Director**

Dec. 14	City-Wide Radiological Conference — Skeletal Injuries in Sports
(1982)	
Jan. 11	City-Wide Radiology Conference St. Louis University
Feb. 8	City-Wide Radiology Conference — CT of the Genitourinary Tract
Mar. 8	City-Wide Radiology Conference — Photo-Electronic (Digital) Radiology
Apr. 14	Leroy Sante Lecture by Dr. Benjamin Felson, University of Cincinnati
May 10	City-Wide Radiology Conference — Neuroradiology

St. Louis University Medical Center
Continuing Education
3544 Caroline St., St. Louis 63101
(314) 664-9800, Ext. 127
Contact: **John A. Grellner, Director**

Dec. 9	Pulmonary Problems for Emergency Physicians

Greater Kansas City Radiological Society

Note: 4:00 PM lectures will be held in the Dept. of Diagnostic Radiology, University of Kansas Medical Center, Kansas City, Kan.
6:30 PM lectures will be held at the Alameda Plaza Hotel, Kansas City

(1982)	
Jan. 13	4:00 PM CAT Scanning of the Appendicular Skeleton 6:30 PM CAT Scanning of the Spine
Feb. 10	4:00 PM Recent Advances in Diagnostic Ultrasound 6:30 PM Obstetrical Ultrasound: An Update
Mar. 10	4:00 PM Digital Radiography — Equipment and Technical Considerations 6:30 PM Digital Radiography Clinical Applications
Apr. 14	4:00 PM Percutaneous Abscess Drainage 6:30 PM Percutaneous Biopsy Techniques

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: **Loretta Giacoletto, Office of CME**

Dec. 5	Low Back and Sciatic Pain: Evaluation and Treatment
Dec. 10-12	Current Concepts in Cancer Therapy — Missouri Chapter, American Cancer Society (Stouffer's Riverfront Towers)
(1982)	
Jan. 17-22	Pediatric Gastrointestinal Disease (Keystone, Colo.)
Jan. 23-30	Obstetrics and Gynecology (Aboard the M/S Southward)
Apr. 2-5-May 3	Fourth Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Athens, Greece)

Mercy-Baptist Eye Foundation
615 S. New Ballas Rd., St. Louis 63141
Contact: **Richard B. Oglesby, M.D.**

(1982)	
May 16	14th Eye Seminar: Extracapsular Cataract Extraction

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)

3:00 PM — Surgical Rounds
(Every Wednesday and Friday)

4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)

4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)

8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)

7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesdays)

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

Dec. 10-12	The Heart 1981 (Alameda Plaza Hotel)
(1982) **Jan. 16-23**	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Steamboat Springs, Colo.)
Feb. 19-20	The Long Weekend: Medical Problems in the Patient Who Needs Surgery (Alameda Plaza)
Feb. 21-28	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Palm Springs, Calif.)
Feb. 28-Mar. 7	Traveling Medical Education Course — Kansas City Southwest Clinical Society (St. Thomas, U.S. Virgin Islands)
Mar. 18-20	Perspectives in Medical Care (Hyatt Regency Hotel)
Mar. 20-27	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Crested Butte, Colo.)
Mar. 31	Reproductive Endocrinology and Infertility (Alameda Plaza Hotel)
Apr. 1-3	Update in Obstetrics and Gynecology (Alameda Plaza Hotel)
May 6-7	Surgical Problems — The Old and the New (Alameda Plaza Hotel)
June 5	Symposium on Physical Fitness (Crown Center Hotel)

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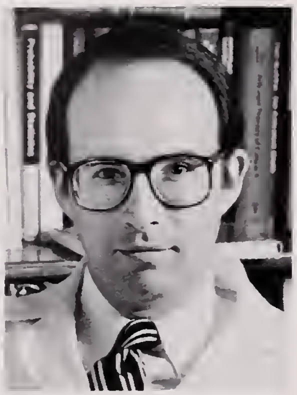
UNIVERSITY OF MISSOURI-COLUMBIA



Dr. Perry

Dr. Michael C. Perry, associate professor of medicine, has been named "Young Internist of the Year" by the American Society of Internal Medicine (ASIM) at the organization's annual meeting in New York.

ASIM confers this award upon members of the society who, while under the age of 40, have made outstanding achievements in the socioeconomics of medicine and furthered the goals and objectives of the Society. He is the tenth recipient of this award established by the ASIM board of trustees in 1968.

Dr. Perry was cited for his work in ASIM and the Missouri Society of Internal Medicine along with his activities at UMC's Department of Medicine "which have helped to further the influence and effectiveness of internal medicine."

Founded in 1956, the American Society of Internal Medicine is a federation of 51 component societies representing practicing internists nationwide who are concerned with the social, economic and political factors affecting the delivery of high quality American medical care.

Dr. Perry, joined the faculty at UMC in 1975 after a year as an instructor in medicine at Mayo Medical School in Rochester, Minn., where he had taken five years of postdoctoral training in internal medicine, hematology and medical oncology. His M.D. degree was awarded at Wayne State University Medical School in Detroit in 1970.

He is actively involved in Cancer and Leukemia Group B (CALGB), a national cancer cooperative treatment group, and serves as a consultant to Ellis Fischel State Cancer Hospital and Harry S. Truman VA Hospital in Columbia.

Earlier this year, Dr. Perry was honored by the Missouri Society of Internal Medicine as "Young Internist of the Year." In 1980, he received the faculty award given by the Missouri chapter of Alpha Omega Alpha, honorary society of medicine. He has held an American Cancer Society Junior Faculty Clinical Fellowship from 1979 to 1981.

Dr. Perry is a member of several scientific societies, author of nearly 30 papers and is on the editorial board of MISSOURI MEDICINE. He serves as chairman of the steering committee of the Missouri Cancer Control Program and is medical director of the John H. Walters Hospice of Central Missouri.

The Surgery Department at the School of Medicine has added four new faculty. They are *Drs. Walter Levy Jr., Michael Metzler, Gregory Renner* and *Brian Smale.*

Dr. Levy received his M.D. degree in 1973 from the University Medical College of Georgia. After finishing a rotating internship at the Medical Center of Central Georgia and a surgery residency at the Medical Center of Western Massachusetts, he completed a neurosurgery residency at the Cleveland Clinic in 1981.

Dr. Metzler received his M.D. degree from Albany Medical College in 1972. After two years of residency at Duke University, he completed his surgery residency at the University of Missouri-Columbia this summer.

Dr. Renner graduated from the Southern Illinois University School of Medicine in 1976. He completed his residency in otolaryngology at the University of Missouri-Columbia this summer.

Dr. Smale graduated from Hahnemann Medical College in 1975. He completed his surgery residency at the Hospital of the University of Pennsylvania this summer.

Dr. Gary Heath, who graduated from the University of Texas Medical Branch at Galveston in 1978, has been named an instructor in the Anesthesiology Department at the School of Medicine. He completed his anesthesiology residency at UMC this summer.

The Child Health Department at the School of Medicine has announced four new faculty members. They are *Drs. Emma Gibson,* assistant professor; *Thomas Hurley,* instructor; *Marie Weinstein,* assistant professor; and *Jane Wray,* assistant professor.

Dr. Gibson received her M.D. degree in 1973 from the University of Colorado; completed her residency at the University of Arizona, Tucson, and took a postdoctoral fellowship in pediatric hematology-oncology at the University of Colorado Medical Center and Denver Children's Hospital. Before coming to the University of Missouri-Columbia, she was director of the pediatric oncology program at Penrose Cancer Hospital in Colorado Springs for two years.

Dr. Hurley received his Ph.D. degree in physiology and pharmacology from Duke University in 1976. For the past five years, he has been a research associate in the Pediatrics Department at Duke.

Dr. Weinstein received her M.D. degree in 1974 from the University of Missouri-Columbia. Her residency was at Martin Luther King Jr. Hospital in Los Angeles. She completed a fellowship in neonatalogy at Brown University earlier this year.

Dr. Wray received a M.D. degree from the University of Texas Medical Branch in Galveston in 1974 and a Ph.D. degree in anatomy from the University of Arizona in 1978. At the University of California at San Diego, she was a postdoctoral fellow in pediatric endocrinology from 1978 to 1980 and reproductive medicine in 1980 to 1981.

ST. LOUIS UNIVERSITY

Dr. Kitchen

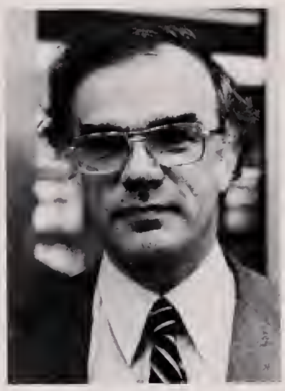
Alice D. Kitchen, M.D., assistant professor of psychiatry, has been named assistant dean for student affairs at the School of Medicine. The appointment, which became effective on October 1 was announced by *David R. Challoner*, M.D., dean of the school of medicine.

In her new position, Dr. Kitchen will focus on the concerns of students, individually and by academic classes, address specific requests of students, and serve as a member of the admissions committee.

"I am especially pleased to have the opportunity to be a role model for women medical students since one quarter of each class is now made up of women. However, my concern is the needs of all students, men and women, and of every race and creed," said Dr. Kitchen.

Dr. Kitchen will work closely with *Manuel Comas*, M.D., associate dean for admissions, and *Alberto Galofre*, M.D., assistant dean for curriculum.

Raymond G. Slavin, M.D., professor of internal medicine and professor of microbiology, recently completed *The Allergy Encyclopedia* for lay people. It is published by New American Library, Inc., New York: New York, 1981.



Dr. Slavin

David M. Perry, M.A., associate dean for planning and operations and *David R. Challoner*, M.D., dean of the School of Medicine, published an article in the August 6 issue of the *New England Journal of Medicine*. It was titled "Research Advances and Resource Contraints: Dilemmas Facing Medical Education."

Five professors at the Medical Center were awarded a total of $75,000 by the Greater St. Louis Affiliate of the American Diabetes Association to research diabetes.

The recipients are *Stewart G. Albert*, M.D., assistant professor of internal medicine, who will study adult onset diabetes focusing on the preproinsulin molecule from which insulin is converted; *Paul J. Garvin*, M.D., assistant professor of surgery, who will research techniques for preservation for pancreatic transplantation; *Yee S. Kim*, Ph.D., professor of pharmacology, who will focus on the effects of maternal diabetes on the fetus; *Dennis A. Popp*, M.D., assistant professor of internal medicine, who will research blood glucose regulation in diabetes and the drug therapy of one of its major complications, cardiovascular disease; and *Alan B. Silverberg*, M.D., assistant professor of internal medicine, who will research the pathogenesis of diabetic complications on the male reproductive system.

WASHINGTON UNIVERSITY

The School of Medicine has received three March of Dimes Birth Defects Foundation research grants totaling $62,770 for the current year. The three recipients are *John M. Chirgwin*, Ph.D., *Maynard V. Olson*, Ph.D. and *Lee A. Rigg*, M.D., Ph.D.

Dr. Chirgwin, assistant professor of anatomy and neurobiology, will study genetic control of nerve growth factor (NGF) and related substances crucial to fetal development. In normal fetal growth, tiny quantities of NGF produced within cells appear to mark them as "targets" for rapidly growing nerves. By studying the genes that direct production of NGF in mouse cells, and especially the sequence in which they are activated by hormones, Dr. Chirgwin hopes to learn more about normal nerve growth and how genetic abnormalities can disrupt it, perhaps causing mental retardation or other disorders of the nervous system.

Dr. Olson, assistant professor of genetics, will use new computer techniques to develop a complete map of the genes in yeast, the single-celled organism that is widely used to study genetic systems more complex than the viruses and bacteria which have been genetically mapped so far.

Using recombinant DNA techniques to break the chromosomes down into many overlapping short segments, Dr. Olson will correlate the known genes on each segment until a computer can combine the overlaps into a complete map. If the technique is successful, it will bring closer the day when a complete genetic map for human beings is available for use in research and genetic counseling.

Dr. Rigg, assistant professor of obstetrics and gynecology and Barnes Hospital physician, will conduct animal studies to learn more about the special risks faced by infants of diabetic mothers. One study has indicated that as many as 14% of such infants have some kind of malformation. Dr. Rigg plans to study receptor sites for insulin on maternal and fetal cells, which are particularly sensitive to insulin and blood-sugar levels during growth, and to compare several different therapies for diabetic women in an effort to reduce the number of affected babies born to them.

UNIVERSITY OF MISSOURI-KANSAS CITY

Five physicians have joined the faculty of the School of Medicine as docents and assistant professors. They are *Drs. Avrahm Cohen, Christopher Mullen, Oscar Schwartz, Reid Smith* and *Charles Webb*.

Dr. Schwartz is a graduate of the UMKC School of Medicine, and Drs. Mullen and Smith completed residency programs with the UMKC Affiliated Hospitals.

Three School of Medicine faculty members recently published the results of their study, "The Achievement of Men and Women in Medical School," which addresses the question of how female student performance, especially clinical performance, compares with male student performance. The study examines 19 measures of achievement of men and women in three classes of the School of Medicine. The results appear in the *Journal of the American Medical Women's Association* (Vol. 37, No. 7, July 1981). Authors are *Louise Arnold*, Ph.D., assistant professor of medicine and sociology; *Lee Willoughby*, research assistant professor; and *Virginia Calkins*, assistant dean for student affairs.

Dr. Edward J. Twin, docent and professor of medicine, has replaced *Dr. Richard Hellman* as director of the School of Medicine's preceptorship program. Dr. Hellman left the School of Medicine on October 1 to become medical director of the Midwest Diabetic Referral Center at Baptist Memorial Hospital in Kansas City. *Ann Nickum*, who was with the Council on Evaluation, will be the administrative assistant for the preceptorship program.

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New Members

Narayana Rao Adusumilli, M.D., 126 W. Main, Malden 63863, has become a member of Dunklin County Medical Society. Dr. Adusumilli is a native of India, received his preliminary education at Hindu College and his M.D. degree at Kurnool Medical College in 1971. He specializes in internal medicine.

Abu Quamar Asadullah Ahmad, M.D., Children's Mercy Hospital, 24th at Gillham Rd., Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Ahmad is a native of Bangladesh, received his preliminary education at Surendranath College and his M.D. degree at Dacca Medical College in 1958. He specializes in otorhinolaryngology.

Robert E. Alleman, M.D., St. Luke's Hospital, 44th & Wornall Rd., Kansas City 64111, has become a member of Jackson County Medical Society. Dr. Alleman is a native of Borger, Tex., received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Kansas in 1976. He specializes in general surgery.

Val John Barlow, M.D., 1033 Manchester Rd., Ellisville 63011, has become a member of St. Louis Metropolitan Medical Society. Dr. Barlow is a native of Salt Lake City, Utah, received his preliminary education at Stanford University and his M.D. degree at the University of Colorado in 1976. He specializes in internal medicine.

William Richard Barnard, M.D., 5003 Mission Rd., Shawnee Mission, Kan. 66205, has become a member of Jackson County Medical Society. Dr. Barnard is a native of Joplin, received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1978. He specializes in internal medicine.

William D. Clark, M.D., South Park and Freeman, El Dorado Springs 64744, has become a member of West Central Missouri Medical Society. Dr. Clark is a native of Boone, Iowa, received his preliminary education at Iowa State University and his M.D. degree at Iowa State University in 1977. He specializes in family practice.

Edwin A. Cortez, M.D., 6724 Troost, Kansas City 64131, has become a member of Jackson County Medical Society. Dr. Cortez is a native of Kansas City, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in otorhinolaryngology and head and neck surgery.

John T. Critchlow, M.D., 626 Summit, Mexico 65265, has become a member of Audrain County Medical Society. Dr. Critchlow received his preliminary education at Southeast Missouri State University and his M.D. degree at the University of Missouri-Columbia in 1974. He specializes in surgery.

Antonio Songco Dimalanta, M.D., 430 South Ave., Springfield 65806, has become a member of Greene County Medical Society. Dr. Dimalanta is a native of the Philippines, received his preliminary education at the University of Santo Tomas and his M.D. degree at the University of Santo Tomas in 1971. He specializes in adult and child psychiatry.

Quinton M. Ditmore, M.D., N522 Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Ditmore is a native of Neosho, received his preliminary education at the University of Oklahoma and his M.D. degree at the University of Oklahoma in 1969. He specializes in neurological surgery.

James Herbert Esther, M.D., 3009 N. Ballas Rd., Suite 100, St. Louis 63131, has become a member of St. Louis Metropolitan Medical Society. Dr. Esther is a native of St. Louis, received his preliminary education at Northwestern University and his M.D. degree at Northwestern University in 1976. He specializes in internal medicine and rheumatology.

Edward William Gotti, M.D., Dept. of Nuclear Medicine, St. John's Regional Health Center, 1235 Cherokee, Springfield 65802, has become a member of Greene County Medical Society. Dr. Gotti is a native of Bayonne, N.J., received his preliminary education at Pennsylvania State University and his M.D. degree at the University of Florida in 1967. He specializes in nuclear medicine.

Douglas A. Hacker, M.D., 403 Professional Bldg., Springfield 65806, has become a member of Greene County Medical Society. Dr. Hacker is a native of Detroit, Mich., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1974. He specializes in neuroradiology.

Drew Wilson Hause, M.D., 2929 Baltimore, Suite 415, Kansas City 64108, has become a member of Jackson County Medical Society. Dr. Hause is a native of Kansas City, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in internal medicine.

John Havey, M.D., 407 Maplewood Dr., Columbia 65201, has become a member of Boone County Medical Society. Dr. Havey is a native of Springfield, Ill., received his preliminary education at Eastern Illinois University and his M.D. degree at Southern Illinois University in 1977. He specializes in orthopedic surgery.

Sang W. Johe, M.D., St. Joseph State Hospital, 3400 Frederick, St. Joseph 64502, has become a member of Buchanan County Medical Society. Dr. Johe is a native of South Korea, received his preliminary education at Kwang-Ju Medical School and his M.D. degree at Seoul National University in 1950. He specializes in orthopedic surgery.

Robert Peter Jones, M.D., Suite 501, Blue Ridge Tower, 4240 Blue Ridge Blvd., Kansas City 64133, has become a member of Jackson County Medical Society. Dr. Jones is a native of Waukegan, Ill., received his preliminary education at the University of Notre Dame and his M.D. degree at St. Louis University in 1972. He specializes in orthopedic surgery.

Donald L. Kampschmidt, M.D., Harwood Clinic, Lebanon 65536, has become a member of Laclede County Medical Society. Dr. Kampschmidt is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in family practice.

Hong J. Kang, M.D., University of Missouri, N207 Health Sciences Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Kang is a native of Japan, received his preliminary education at Korea University and his M.D. degree at Korea University in 1969. He specializes in radiology.

Kathleen Thiel LeVeck, M.D., 7334 Drexel Dr., St. Louis 63130, has become a member of St. Louis Metropolitan Medical Society. Dr. LeVeck is a native of St. Louis, received her preliminary education at St. Louis University and her M.D. degree at St. Louis University in 1980. She specializes in obstetrics and gynecology.

Elliott K. Main, M.D., 7507 Parkdale, St. Louis 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Main is a native of Needham, Mass., received his preliminary education at Yale College and his M.D. degree at the University of Vermont in 1977. He specializes in obstetrics and gynecology.

In Memoriam

Howard Andrew Dunaway, M.D., P.O. Box 806, Sikeston 63801, graduate of St. Louis University, 1931; member of SEMO County Medical Society; aged 77; died Aug. 21, 1981.

Carroll Paul Hungate, M.D., 522 Professional Bldg., 1103 Grand, Kansas City 64106; graduate of the University of Kansas, 1928; member of Jackson County Medical Society; aged 77; died Aug. 22, 1981.

John A. Konzelman, M.D., R. #1, Box 206, O'Fallon 63366; graduate of University of Illinois, 1906; member of St. Louis Metropolitan Medical Society; aged 99; died Aug. 24, 1981.

Waldo Edwards, M.D., 135 W. Adams, Kirkwood 63122; graduate of the University of Arkansas, 1934; member of Jefferson County Medical Society; aged 75; died Sept. 11, 1981.

Watson W. Kaminsky, M.D., 5111 Donovan, St. Louis 63109; graduate of St. Louis University, 1957; member of St. Louis Metropolitan Medical Society; aged 49; died Sept. 11, 1981.

Stanley G. McCool, M.D., 316 N. Newstead Ave., St. Louis 63108; graduate of Jefferson Medical College, 1934; member of St. Louis Metropolitan Medical Society; aged 72; died Sept. 17, 1981.

Louise A. Morley, M.D., 4907 Neosho, Shawnee Mission, Kan. 66205; graduate of University of Kansas, 1938; member of Jackson County Medical Society; aged 86; died Sept. 21, 1980.

Manuel I. Marban, M.D., 4141 Forrest Park, St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. Marban is a native of the Philippines, received his preliminary education at Xavier University and his M.D. degree at the University of Santo Tomas in 1964. He specializes in anatomic and clinical pathology.

John K. McKelvey, M.D., 4440 Lindell, #203, St. Louis 63108, has become a member of St. Louis Metropolitan Medical Society. Dr. McKelvey is a native of Chanute, Kan., received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1979. He specializes in pediatrics.

John U. Merkel, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Merkel is a native of Indianapolis, Ind., received his preliminary education at Quincy College and his M.D. degree at Indiana University in 1980. He specializes in family practice.

William D. Miller, M.D., 510 Francis, St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Miller is a native of St. Joseph, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in family practice.

Richard E. Moore, M.D., P.O. Box 877, 145 Mt. Auburn Rd., Cape Girardeau 63701, has become a member of Cape Girardeau County Area Medical Society. Dr. Moore is a native of Ironton, received his preliminary education at the University of Missouri-Rolla and his M.D. degree at the University of Missouri-Columbia in 1978. He specializes in anesthesiology.

Michael D. Nickell, M.D., 3402 McIntosh Circle Dr., Joplin 64802, has become a member of Jasper County Medical Society. Dr. Nickell is a native of Maryville, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in internal medicine and gastroenterology.

John J. O'Connor, M.D., 304 E. Main, Warrenton 63383, has become a member of Franklin-Gasconade-Warren County Medical Society. Dr. O'Connor is a native of St. Louis, received his preliminary education at the University of Missouri-St. Louis and his M.D. degree at Washington University in 1978. He specializes in family practice.

Gregory J. Renner, M.D., M583 University Medical Center, Columbia 65201, has become a member of Boone County Medical Society. Dr. Renner is a native of Belleville, Ill., received his preliminary education at the University of Dayton and his M.D. degree at Illinois University in 1976. He specializes in otolaryngology and head and neck surgery.

Q. Scott Ringenberg, M.D., 807 Stadium Rd., Columbia 65212, has become a member of Boone County Medical Society. Dr. Ringenberg is a native of Rantoul, Ill., received his preliminary education at Northwestern University and his M.D. degree at the University of Missouri-Columbia in 1979. He specializes in internal medicine.

James R. Rohrbaugh, M.D., 11745 Olive Street, St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Rohrbaugh is a native of Tiffin, Ohio, received his preliminary education at Yale University and his

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M.D. degree at Ohio State University in 1974. He specializes in pediatric neurology.

Charles W. Runde, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Runde is a native of Effingham, Ill., received his preliminary education at the University of Illinois and his M.D. degree at the University of Illinois in 1980. He specializes in family practice.

Timothy P. Salmon, M.D., 215 Brewer Dr., Columbia 65201, has become a member of Boone County Medical Society. Dr. Salmon is a native of Schenectady, N.Y., received his preliminary education at Pennsylvania State University and his M.D. degree at the University of Pittsburgh in 1978. He specializes in dermatology.

Michael D. Schoenleber, M.D., 6th & Spring, Boonville 65233, has become a member of Cooper County Medical Society. Dr. Schoenleber is a native of Wichita, Kan., received his preliminary education at the University of Kansas and his M.D. degree at the University of Kansas in 1977. He specializes in family practice.

Michael J. Silberstein, M.D., 1465 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Silberstein is a native of Johannesburg, South Africa, received his preliminary education at the University of Witwatersrand and his M.D. degree at the University of Witwatersrand in 1967. He specializes in pediatric radiology.

Charles E. Stevenson, M.D., Lee's Summit Community Hospital, 530 N. Murry, P.O. Box 767, Lee's Summit 64063, has become a member of Jackson County Medical Society. Dr. Stevenson is a native of Labette, Kan., received his preliminary education at Bethel College and his M.D. degree at the University of Kansas in 1944. He specializes in anesthesiology.

Larry P. Stewart, M.D., 1155 Crested View Dr., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Stewart is a native of Jackson, Tenn., received his preliminary education at the University of Tennessee and his M.D. degree at Meharry Medical College in 1975. He specializes in ophthalmology.

Donald R. St. John, M.D., 1011 S. Stonehaven, Marshall 65340, has become a member of Jasper County Medical Society. Dr. St. John is a native of Fort Lupton, Colo., received his preliminary education at Regis College and his M.D. degree at St. Louis University in 1955. He specializes in emergency medicine.

William B. Strecker, M.D., 4960 Audubon Ave., Room 115 Wohl, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Strecker is a native of St. Louis, received his preliminary education at the University of Missouri and his M.D. degree at St. Louis University in 1975. He specializes in orthopedic surgery.

Gary B. Strong, M.D., 1001 N. Independence Ave., Lee's Summit 64063, has become a member of Jackson County Medical Society. Dr. Strong is a native of Dallas, Tex., received his preliminary education at the University of Texas and his M.D. degree at Vanderbilt University in 1978. He specializes in pediatrics.

Steve J. Taylor, M.D., 321 N. Washington, Mexico 65265, has become a member of Audrain County Medical Society. Dr. Taylor received his preliminary education at Stanford University and his M.D. degree at Washington University in 1971. He specializes in general practice.

Soros Tungsiripat, M.D., 105 E. Washington, Kennett 63857, has become a member of Dunklin County Medical Society. Dr. Tungsiripat is a native of Thailand, received his preliminary education at the Faculty of Medical Science Bangkok and his M.D. degree at Chiengmai Medical School in 1967. He specializes in pediatrics.

New Student Members

St. Louis University

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Steven C. Dina
John K. Moran
Susan L. Shutt

University of Missouri-Columbia

Steve A. McClain
James D. Perkins

University of Missouri-Kansas City

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in Brief

A summary of AMA, medical & health news

American Medical Association / 535 North Dearborn Street / Chicago, Illinois 60610 / Phone (312) 527-1500 / TWX 910-221-0300

THE FIRST NATIONWIDE electronic medical health information system will be developed and operated under a long-term agreement between the AMA and General Telephone and Electronics. The system, which will make information instantly available on computer terminals at any location in the country, will become operational in mid-1982 with a program on drug-related information. The only equipment needed to gain access to the data will be a basic computer terminal connected to an existing telephone line. In many instances, physicians and hospitals will be able to use their existing terminals with the new system. "We see this system giving aid as the physician goes about the business of collecting all available information in order to make the best medical judgment for each patient," said AMA Executive Vice-President James H. Sammons, M.D.

THE AMA PURCHASED a Washington, D.C. office building for investment purposes. The nine-story building is located at 929 E. St., N.W., one block off Pennsylvania Ave., in a developing area called the Federal Triangle. "This purchase will help us produce added non-dues revenue." said AMA Executive Vice-President James H. Sammons, M.D. The AMA bought the building from private investors for $13.3 million. The interior of the building will be renovated and rented to commercial tenants.

AN ANTITRUST SUIT involving chiropractic has been resolved by the AMA and the state of New York. The agreement states, in part, "It is the position of the state of New York that positions of the AMA on relations between physicians and chiropractors . . . comply with the federal and state antitrust laws, and serve the public interest." The state had charged the AMA and 13 other organizations and individuals with combining to prevent chiropractors from competing effectively. In the agreement, the AMA denies any violation of anti-trust laws and said it entered the stipulation to avoid further litigation and to obtain "total and final resolution of all claims." A spokesman said the AMA will "continue to speak out on matters of health care, as it has always done in following the charge given by its founders to protect the public health."

THE AMA SUBMITTED a series of proposed amendments to the Federal Trade Commission Act, pointing out to a Senate subcommittee that medical organizations have had to "divert scarce resources from socially beneficial activities to defend against unfounded FTC charges." The AMA witness said FTC actions have crippled the ability of the profession to serve the best interests of the public and have infringed upon state laws. Among other things, the AMA amendments would affirm the lack of FTC jurisdiction over state-regulated professions; preclude preemption of state laws by the FTC; clarify the meaning of "unfair competition"; and provide defendants protections afforded through a judicial proceeding.

THE AMA URGED CONGRESS to eliminate inequities in the way the nation deals with foreign medical graduates by adopting proposed amendments to the Immigration and Nationality Act. In a letter to a House Judiciary Subcommittee, the AMA said the amendments (HR 2043) would benefit the FMG and the FMG's country of origin and would result in improved patient care in the U.S. The amendments would delete the requirement for specialty board certification, extend the duration of exchange visitor visas to up to seven years, and extend to Dec. 31, 1983 the waivers for FMGs in training programs where there would be a substantial disruption of health services.

MORE FEDERAL LEGISLATION is not needed to combat the problems caused by the diversion of licit drugs to illicit purposes, the AMA told the House Judiciary Subcommittee on Crime. The Association said it supports funding to enable the Drug Enforcement Administration to meet its obligations under existing laws, and it offered to work with the subcommittee on a drug abuse agenda for the 80s. "The single greatest problem giving rise to drug abuse in this nation is the overwhelming quantity of illicitly manufactured drugs coming into this country from overseas," the AMA said. It pointed out that only a very small percentage of the physician population is misprescribing controlled substances for profit, and that organized medicine has a number of programs designed to help solve the problem of misprescribing.

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Double fault for weekend warriors
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Twofold analgesic action teamed with time-proven efficacy against concurrent anxiety and tension in patients with musculoskeletal disease.*

EOUAGESIC—Abbreviated Summary

***INDICATIONS**: Based on a review of this drug by the National Academy of Sciences—National Research Council and/or other information, FDA has classified the indications as follows

"Possibly" effective for the treatment of pain accompanied by tension and/or anxiety in patients with musculoskeletal disease or tension headache

Final classification of the less-than-effective indications requires further investigation

The effectiveness of Equagesic in long-term use, i e more than four months, has not been assessed by systematic clinical studies The physician should periodically reassess usefulness of the drug for the individual patient

CONTRAINDICATIONS: Equagesic should not be given to individuals with a history of sensitivity or severe intolerance to aspirin, meprobamate, or ethoheptazine citrate

WARNINGS: Careful supervision of dose and amounts prescribed for patients is advised, especially with those patients with known propensity for taking excessive quantities of drugs Excessive and prolonged use in susceptible persons, e g , alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on or habituation to the drug Where excessive dosage has continued for weeks or months, dosage should be reduced gradually rather than abruptly stopped, since withdrawal of a "crutch" may precipitate withdrawal reaction of greater proportions than that for which the drug was originally prescribed Abrupt discontinuance of doses in excess of the recommended dose has resulted in some cases in the occurrence of epileptiform seizures

Special care should be taken to warn patients taking meprobamate that tolerance to alcohol may be lowered with resultant slowing of reaction time and impairment of judgment and coordination

USAGE IN PREGNANCY AND LACTATION An increased risk of congenital malformations associated with the use of minor tranquilizers (meprobamate, chlordiazepoxide, and diazepam) during the first trimester of pregnancy has been suggested in several studies. Because use of these drugs is rarely a matter of urgency, their use during this period should almost always be avoided. The possibility that a woman of child-bearing potential may be pregnant at the time of institution of therapy should be considered. Patients should be advised that if they become pregnent during therapy or intend to become pregnant they should communicate with their physicians about the desirability of discontinuing the drug

Meprobamate passes the placental barrier. It is present both in umbilical-cord blood at or neer meternal plasma levels and in breast milk of lactating mothers el concentrations two to four times that of maternal plasma. When use of meprobamate is contemplated in breast-feeding patients, the drug's higher concentration in breast milk as compared to maternal plasma levels should be considered.

Preparations containing aspirin should be kept out of the reach of children Equagesic is not recommended for patients 12 years of age and under

PRECAUTIONS: Should drowsiness, ataxia, or visual disturbance occur, the dose should be reduced If symptoms continue, patients should not operate a motor vehicle or any dangerous machinery

Suicidal attempts with meprobamate have resulted in coma shock, vasomotor and respiratory collapse, and anuria Very few suicidal attempts were fatal, although some patients ingested very large amounts of the drug (20 to 40 gm) These doses are much greater than recommended The drug should be given cautiously, and in small amounts, to patients who have suicidal tendencies In cases where excessive doses have been taken, sleep ensues rapidly and blood pressure, pulse, and respiratory rates are reduced to basal levels Hyperventilation has been reported occasionally Any drug remaining in the stomach should be removed and symptomatic treatment given Should respiration become very shallow and slow CNS stimulants, e g , caffeine, Metrazol or amphetamine, may be cautiously administered If severe hypotension develops, pressor amines should be used parenterally to restore blood pressure to normal levels

ADVERSE REACTIONS: A small percentage of patients may experience nausea with or without vomiting and epigastric distress Dizziness occurs rarely when meprobamate and ethoheptazine citrate with aspirin is administered in recommended dosage The meprobamate may cause drowsiness but, as a rule, this disappears as therapy is continued Should drowsiness persist and be associated with ataxia, this symptom can usually be controlled by decreasing the dose, but occasionally it may be desirable to administer central stimulants such as amphetamine or mephentermine sulfate concomitantly to control drowsiness

A clearly related side effect to the administration of meprobamate is the rare occurrence of allergic or idiosyncratic reactions This response develops, as a rule, in patients who have had only 1-4 doses of meprobamate and have not had a previous contact with the drug Previous history of allergy may or may not be related to the incidence of reactions

Mild reactions are characterized by an itchy urticarial or erythematous, maculopapular rash which may be generalized or confined to the groin Acute nonthrombocytopenic purpura with cutaneous petechiae, ecchymoses, peripheral edema, and fever have also been reported

More severe cases, observed only very rarely, may also have other allergic responses, including fever, fainting spells angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case), and hyperthermia Treatment should be symptomatic such as administration of epinephrine, antihistamine, and possibly hydrocortisone Meprobamate should be stopped, and reinstitution of therapy should not be attempted

Rare cases have been reported where patients receiving meprobamate suffered from aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia In nearly every instance reported, other toxic agents known to have caused these conditions have been associated with meprobamate A few cases of leukopenia during continuous administration of meprobamate are reported, most of these returned to normal without discontinuation of the drug

Impairment of accommodation and visual acuity has been reported rarely

OVERDOSE: Two instances of accidental or intentional significant overdosage with ethoheptazine citrate combined with aspirin have been reported These were accompanied by symptoms of CNS depression, including drowsiness and lightheadedness, with uneventful recovery However, on the basis of pharmacological data, it may be anticipated that CNS stimulation could occur Other anticipated symptoms would include nausea and vomiting Appropriate therapy of signs and symptoms as they appear is the only recommendation possible at this time Overdosage with ethoheptazine combined with aspirin would probably produce the usual symptoms and signs of salicylate intoxication Observation and treatment should include induced vomiting or gastric lavage, specific parenteral electrolyte therapy for ketoacidosis and dehydration, watching for evidence of hemorrhagic manifestations due to hypoprothrombinemia which, if it occurs, usually requires whole-blood transfusions

DESCRIPTION: Each Equagesic tablet contains 150 mg meprobamate 75 mg ethoheptazine citrate and 250 mg aspirin

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*This drug has been evaluated as possibly effective for this indication

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WYGESIC—Abbreviated Summary

INDICATION: For the relief of mild-to-moderate pain

CONTRAINDICATION: Hypersensitivity to propoxyphene or to acetaminophen

WARNINGS: CNS ADDITIVE EFFECTS AND OVERDOSAGE Propoxyphene in combination with alcohol tranquilizers, sedative-hypnotics or other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended Toxic effects and fatalities have occurred following overdoses of propoxyphene alone or in combination with other CNS depressants Most of these patients had histories of emotional disturbances or suicidal ideation or attempts as well as misuse of tranquilizers alcohol or other CNS-active drugs Caution should be exercised in prescribing large amounts of propoxyphene for such patients (see **Management of Overdosage**)

DRUG DEPENDENCE: Propoxyphene can produce drug dependence characterized by psychic dependence and less frequently physical dependence and tolerance It will only partially suppress the withdrawal syndrome in individuals physically dependent on morphine or other narcotics The abuse liability of propoxyphene is qualitatively similar to codeine's although quantitatively less and propoxyphene should be prescribed with the same degree of caution appropriate to the use of codeine

USAGE IN AMBULATORY PATIENTS: Propoxyphene may impair the mental and/or physical abilities required for potentially hazardous tasks e g driving a car or operating machinery Patients should be cautioned accordingly

USAGE IN PREGNANCY: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development INSTANCES OF WITHDRAWAL SYMPTOMS IN THE NEONATE HAVE BEEN REPORTED FOLLOWING USAGE DURING PREGNANCY Therefore propoxyphene should not be used in pregnant women unless in the judgement of the physician the potential benefits outweigh the possible hazards

USAGE IN CHILDREN: Propoxyphene is not recommended for children because documented clinical experience has been insufficient to establish safety and a suitable dosage regimen in the pediatric group

PRECAUTIONS: Confusion anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine The CNS depressant effect of propoxyphene may be additive with other CNS depressants including alcohol

ADVERSE REACTIONS: The most frequent adverse reactions are dizziness sedation nausea and vomiting These seem more prominent in ambulatory than in nonambulatory patients, some of these reactions may be alleviated if the patient lies down

Other adverse reactions include constipation, abdominal pain, skin rashes, light-headedness headache weakness euphoria dysphoria and minor visual disturbances The chronic ingestion of propoxyphene in doses over 800 mg per day has caused toxic psychoses and convulsions Cases of liver dysfunction have been reported

DRUG INTERACTIONS: Propoxyphene in combination with alcohol, tranquilizers sedative-hypnotics and other CNS depressants has an additive depressant effect Patients taking this drug should be advised of the additive effect and warned not to exceed the dosage recommended (see **Warnings**) Confusion, anxiety and tremors have been reported in a few patients receiving propoxyphene concomitantly with orphenadrine

MANAGEMENT OF OVERDOSAGE: SYMPTOMS The manifestations of serious overdosage with propoxyphene are similar to those of narcotic overdosage and include respiratory depression (a decrease in respiratory rate and or tidal volume, Cheyne-Stokes respiration, cyanosis), extreme somnolence progressing to stupor or coma pupillary constriction, and circulatory collapse In addition to these characteristics which are reversed by narcotic antagonists such as naloxone there may be other effects Overdoses of propoxyphene can cause delay of cardiac conduction as well as focal or generalized convulsions a prominent feature in most cases of severe poisoning Cardiac arrhythmias and pulmonary edema have occasionally been reported, and apnea cardiac arrest, and death have occurred

Symptoms of massive overdosage with acetaminophen may include nausea, vomiting, anorexia, and abdominal pain beginning shortly after ingestion and lasting for 12 to 24 hours However early recognition may be difficult since early symptoms may be mild and nonspecific Evidence of liver damage is usually delayed After the initial symptoms the patient may feel less ill, however, laboratory determinations are likely to show a rapid rise in liver enzymes and bilirubin In case of serious hepatotoxicity jaundice, coagulation defects, hypoglycemia, encephalopathy, coma, and death may follow Renal failure due to tubular necrosis and myocardiopathy have also been reported

Ingestion of 10 grams or more of acetaminophen may produce hepatotoxicity A 13-gram dose has reportedly been fatal

TREATMENT: Primary attention should be given to the reestablishment of adequate respiratory exchange through provision of a patent airway and institution of assisted or controlled ventilation The narcotic antagonists naloxone nalorphine and levallorphan are specific antidotes against the respiratory depression produced by propoxyphene An appropriate dose of one of these antagonists should be administered preferably I V, simultaneously with efforts at respiratory resuscitation and the antagonist should be repeated as necessary until the patient's condition remains satisfactory In addition to a narcotic antagonist the patient may require careful titration with an anticonvulsant to control seizures Analeptic drugs (e g caffeine or amphetamine) should not be used because of their tendency to precipitate convulsions

Oxygen IV fluids vasopressors and other supportive measures should be used as indicated Gastric lavage may be helpful Activated charcoal can absorb a significant amount of ingested propoxyphene Dialysis is of little value in poisoning by propoxyphene alone Acetaminophen is rapidly absorbed and efforts to remove the drug from the body should not be delayed Copious gastric lavage and or induction of emesis may be indicated Activated charcoal is probably ineffective unless administered almost immediately after acetaminophen ingestion Neither forced diuresis nor hemodialysis appears to be effective in removing acetaminophen Since acetaminophen in overdose may have an antidiuretic effect and may produce renal damage administration of fluids should be carefully monitored to avoid overload It has been reported that mercaptamine (cysteamine) or other thiol compounds may protect against liver damage if given soon after overdosage (8-10 hours) N-acetylcysteine is under investigation as a less toxic alternative to mercaptamine, which may cause anorexia, nausea, vomiting and drowsiness Appropriate literature should be consulted for further information (JAMA 237 2406-2407, 1977)

Clinical and laboratory evidence of hepatotoxicity may be delayed up to one week Acetaminophen plasma levels and half-life may be useful in assessing the likelihood of hepatotoxicity Serial hepatic enzyme determinations are also recommended

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Missouri Medicine

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Ru-Tuss Tablets act continuously for 10 to 12 hours

Ru-Tuss Tablets are an oral antihistaminic, nasal decongestant and anti-secretory preparation.

INDICATIONS AND USAGE Ru-Tuss Tablets provide relief of the symptoms resulting from irritation of sinus, nasal and upper respiratory tract tissues. Phenylephrine and phenylpropanolamine combine to exert a vasoconstrictive and decongestive action while chlorpheniramine maleate decreases the symptoms of watering eyes, post nasal drip and sneezing which may be associated with an allergic-like response The belladonna alkaloids, hyoscyamine, atropine and scopolamine further augment the anti-secretory activity of Ru-Tuss Tablets

CONTRAINDICATIONS Hypersensitivity to antihistamines or sympathomimetics Ru-Tuss Tablets are contraindicated in children under 12 years of age and in patients with glaucoma, bronchial asthma and women who are pregnant Concomitant use of MAO inhibitors is contraindicated

WARNINGS Ru-Tuss Tablets may cause drowsiness Patients should be warned of the possible additive effects caused by taking antihistamines with alcohol, hypnotics, sedatives or tranquilizers

PRECAUTIONS Ru-Tuss Tablets contain belladonna alkaloids, and must be administered with care to those patients with glaucoma, or urinary bladder neck obstruction Caution should be exercised when Ru-Tuss Tablets are given to patients with hypertension, cardiac or peripheral vascular disease or hyperthyroidism Patients should avoid driving a motor vehicle or operating dangerous machinery (See Warnings).

OVERDOSAGE Since the action of sustained release products may continue for as long as 12 hours, treatment of overdoses directed at reversing the effects of the drug and supporting the patient should be maintained for at least that length of time Saline cathartics are useful for hastening evacuation of unreleased medication In children and infants, antihistamine overdosage may produce convulsions and death.

ADVERSE REACTIONS Hypersensitivity reactions such as rash, urticaria leukopenia, agranulocytosis, and thrombocytopenia may occur Other adverse reactions to Ru-Tuss Tablets may be drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, tachycardia hypotension/hypertension, faintness, dizziness, tinnitus, headache, incoordination, visual disturbances, mydriasis, xerostomia blurred vision, anorexia nausea vomiting, diarrhea, constipation, epigastric distress, hyperirritability nervousness, dizziness and insomnia Large overdoses may cause tachypnea, delirium, fever, stupor, coma and respiratory failure

DOSAGE AND ADMINISTRATION Adults and children over 12 years of age one tablet morning and evening Not recommended for children under 12 years of age Tablets are to be swallowed whole

HOW SUPPLIED:

Bottles of 100 Tablets	NDC 0524-0058-01
Bottles of 500 Tablets	NDC 0524-0058-05

Federal law prohibits dispensing without prescription

COUGH

RU-TUSS® EXPECTORANT

DESCRIPTION
Each fluid ounce of Ru-Tuss Expectorant contains

Codeine Phosphate	65.8
(WARNING: MAY BE HABIT FORMING)	
Phenylephrine Hydrochloride	30
Phenylpropanolamine Hydrochloride	20
Pheniramine Maleate	20
Pyrilamine Maleate	20
Ammonium Chloride	200
Alcohol	

Ru-Tuss Expectorant is an oral antitussive, antihistaminic, nasal decongestant c
expectorant preparation.

INDICATIONS AND USAGE Ru-Tuss Expectorant is indicated for symptomatic relie
upper respiratory congestion associated with pharyngitis, tracheitis, bronchitis, c
allergic rhinitis Also, for the temporary relief of symptoms associated with hay fe
allergies, nasal congestion and cough due to the common cold

CONTRAINDICATIONS Hypersensitivity to antihistamines Concomitant use of an c
hypertensive or antidepressant drug containing a monoamine oxidase inhibito
contraindicated.

Ru-Tuss Expectorant is contraindicated in patients with glaucoma, bronchial asth
and in women who are pregnant

WARNINGS Ru-Tuss Expectorant contains codeine phosphate, therefore, the pati
should be warned of the potential that this drug may be habit forming Ru-Tuss Exp
torant may cause drowsiness Patients should be warned of the possible additive ef
caused by taking antihistamines with alcohol, hypnotics, sedatives and tranquilize

PRECAUTIONS Patients taking Ru-Tuss Expectorant should avoid driving a motor veh
or operating dangerous machinery (See Warnings). Caution should be taken with
tients having hypertension, diabetes, hyperthyroidism and cardiovascular disease
Caution should also be used in patients with pulmonary, hepatic or renal insufficie

ADVERSE REACTIONS Ru-Tuss Expectorant may cause drowsiness, lassitude, giddin
dryness of mucous membranes, tightness of the chest, thickening of bronchial se
tions, urinary frequency and dysuria, palpitation, tachycardia, hypotension/hyper
sion, faintness, dizziness, tinnitus, headache, incoordination, visual disturbanc
mydriasis, xerostomia, blurred vision, anorexia, nausea, vomiting, diarrhea, consti
tion, epigastric distress, hyperirritability, nervousness and insomnia Overdoses m
cause restlessness, excitation, delirium, tremors, euphoria, metabolic acidosis, stu
tachycardia and even convulsions

DOSAGE AND ADMINISTRATION Adults 1 or 2 teaspoonfuls, orally, every 4 hours, nc
exceed 10 teaspoonfuls in any 24-hour period

Children 6 to 12 years of age: ½ the adult dose, not to exceed 6 teaspoonfuls in
24-hour period Children 2 to 6 years of age ½ teaspoonful every 4 hours, not to exce
3 teaspoonfuls in any 24-hour period Children under 2 years of age Use as directec
a physician.

HOW SUPPLIED

Pint bottles (16 fl oz)	NDC 0524-101

Federal law prohibits dispensing without prescription

DISTRIBUTED BY:
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Shreveport, Louisiana 71106

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Springfield Gardens, New York 11413

Boots Pharmaceuticals, Inc.
Shreveport, Louisiana 71106
Pioneers in Medicine For the Family

MSMA

NEWS ROUND - UP

December, 1981

Seminar focuses on medical image

Getting important health care information to the public was the subject of a Communications Training Seminar held November 7 at the Hilton Inn in Columbia. About 30 physicians and Auxiliary members attended the conference.

Seminar instructor was Allan McKinnon, professional communications coordinator for Burroughs-Wellcome, Co., of North Carolina.

"Negative public opinion toward those of us in the health care industry is often generated by mass media communication of inaccurate, irrelevant, incomplete or misleading information," said McKinnon. "This is not because media people 'have it in for' those of us in the health care industry. It is the lack of communication from us about who we are, what we are, what we know and what we believe."

He continued, "Since practicing professionals are the best equipped to educate the public about disease, prevention of disease, treatment of disease and the effect of government intervention on the availability of health care, they should be the ones to provide this education."

In a workshop setting, participants practiced interview techniques in front of television cameras.

Following the seminar, MSMA's Component Society Officers conducted their first meeting in three years. MSMA President E. T. Hansbrough, M.D.; President-Elect John I. Matthews, M.D.; Immediate Past-President Richard V. Bradley, M.D.; Director of the Missouri Division of Health Mohammad Akhter, M.D., plus staff executives and lobbyists addressed the group.

Allan McKinnon (left), professional communications coordinator for Burroughs Wellcome, Co., led physicians through practice television interviews.

Recommendations sought for 1982 committee appointments

Dr. John I. Matthews, Missouri State Medical Association president-elect, is soliciting recommendations for commission and committee appointments available in 1982.

At the 124th Annual Session, Dr. Matthews will take the gavel as the new MSMA president. During the session, he will appoint new commission and committee members.

The Annual Session will be held April 1-4, 1982, at the Hyatt Regency Hotel in Kansas City.

Nominations may be submitted to MSMA headquarters.

Constitution change up for membership vote

At the 1981 Annual Session, the House of Delegates of the Missouri State Medical Association voted to discontinue the Interim Session of the House. In so voting, one change in the MSMA Constitution was overlooked. This oversight was presented by the Committee on Constitution and By-Laws at the Annual Session for final vote at the 1982 Annual Session. (bracketed words are deleted).

Article XI. Amendments

> The House of Delegates may amend any article of the constitution by a two-thirds vote of the delegates present and voting in any Annual [or Interim] Session, provided that such amendment shall have been presented in the previous open meeting of the House of Delegates and that the amendment shall have been published twice during the year in the Journal of the Association or sent officially to each component society at least two months prior to the meeting at which final action is to be taken.

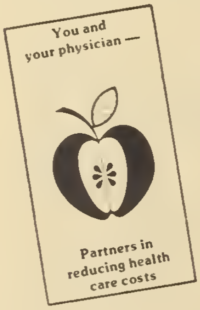
Brochure receives widespread approval

MSMA has begun a campaign to help patients trim the escalating cost of health care.

Over 24,000 copies of a brochure entitled "You and Your Physician — Partners in Reducing Health Care Costs" have been distributed to physicians around the state. Members have found the tips so beneficial to their patients that MSMA has reprinted the brochure so that every physician can make copies available in their waiting rooms and through their monthly billing statements.

Among the tips offered in the colorful brochure are suggestions about following doctors' advice and taking prescribed medication, saving hospital emergency rooms for real emergencies and living the kind of lifestyle that is conducive to good health.

In addition, the brochure answers frequently asked questions concerning why health care costs are rising, what physicians are doing about the problem and how patients can help in the effort.


You and your physician —
Partners in reducing health care costs

MSMA is making quantities of the brochures available to members at 10 cents each. To order brochures, send the attached coupon to MSMA, P.O. Box 1028, Jefferson City, MO 65102.

Yes, my patients would like copies of "You and Your Physician — Partners in Reducing Health Care Costs." Please send ________ copies.

Name ______________________________

Street ______________________________

City/State/Zip ________________________

Check enclosed for ______________ (10¢ ea.)

Practice management seminar set for April 14-16, 1982

This spring the Missouri State Medical Association will sponsor a two-day "Establishing Yourself in Medical Practice" workshop.

The seminar will be held April 14-16 at the St. Louis Airport Marriott Hotel in St. Louis.

The program is geared to help physicians start and build a rewarding practice, while minimizing frustrations and costly errors. Participants who will find the greatest benefits are residents and physicians leaving the military.

Presenting the program is Conomikes Associates, Inc., a nationally recognized medical management consulting firm.

The workshop covers such areas as personnel, financing your practice, medical records, economic and legal aspects and practice-building.

For more information, contact MSMA, P.O. Box 1028, Jefferson City, MO 65102.

Exemption rules revised

Starting the 1982 billing year, the American Medical Association will be following new guidelines regarding dues exempt members.

Physicians who fall into one of the two following categories will be exempt from paying AMA dues:

1. Financial hardship and/or disability
2. Over 70 years old and retired from practice

Previously, the AMA exempted physicians who had retired or who were over the age of 70. The new guidelines will not be applied retroactively to physicians who are already dues exempt.

Current AMA members who have turned 70 in 1981 will be contacted by the AMA to find out whether or not they are retired. The AMA has defined retirement as working 20 hours/week or less. Physicians who are over 70, who work more than 20 hours/week, will be informed of the necessity for full payment of AMA dues in order to maintain their membership.

In order for physicians to qualify for financial hardship and/or disability status, they must contact the Missouri State Medical Association, P.O. Box 1028, Jefferson City, MO 65102 (314) 636-5151.

MSMA has lowest state membership dues

As members receive their annual MSMA dues statements, it is interesting to note that Missouri has the lowest state society membership dues in the country.

State dues now range from $125 in Missouri (including a $10 assessment for medical student loan foundation) to $380 in Wisconsin. The highest dues are in Washington, D.C., with $495.

Nationally, state medical societies raised their memberships a median of 10% to $220. AMA dues are now $285.

The following table gives a regional breakdown of median state medical society membership dues:

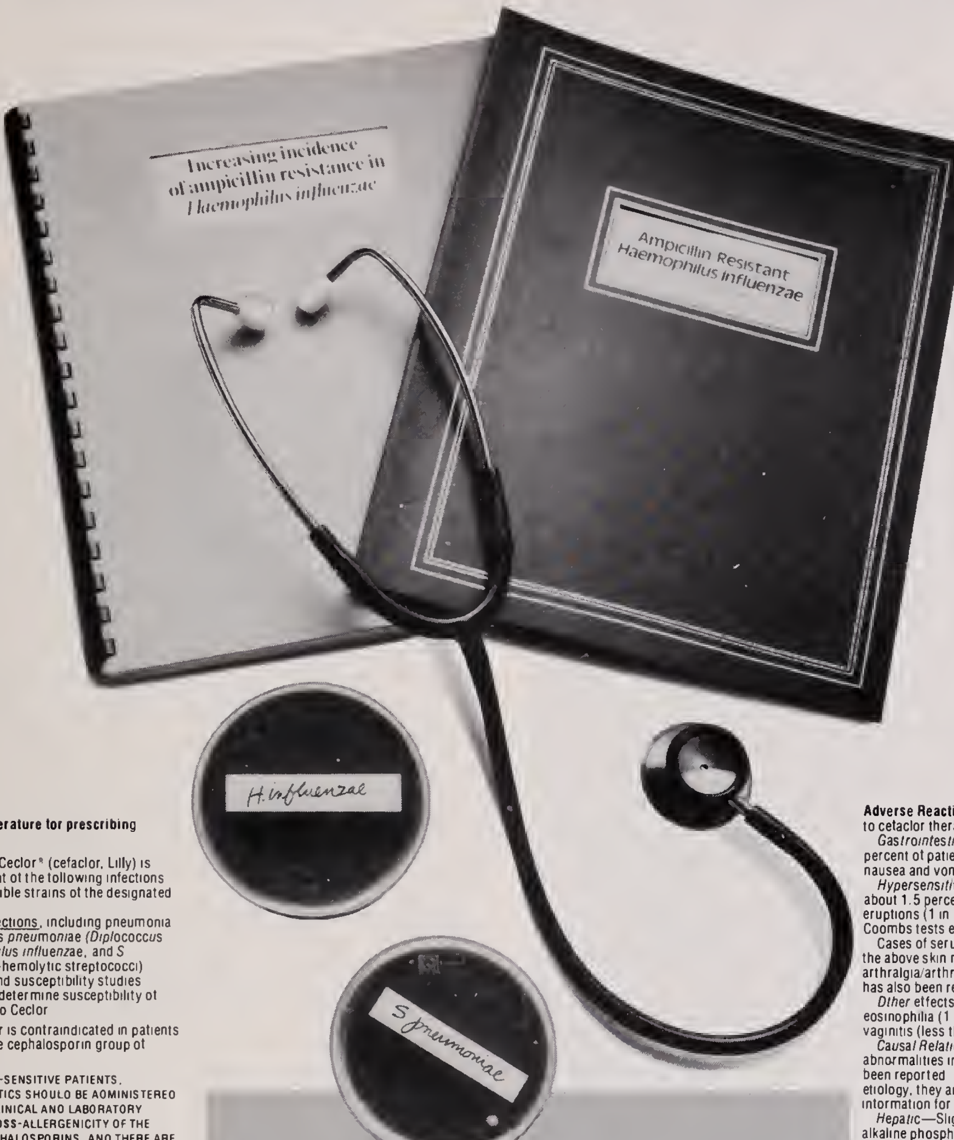
Rocky Mountain	$300	New England	$213
Far West	$273	Great Lakes	$203
Middle Atlantic	$250	Southwest	$200
South Atlantic	$220	Mid-South	$193
Plains	$220	**Missouri**	**$125**

Governor asks physicians to evaluate state regulations

In an effort to develop a positive working atmosphere for physicians who work with the state government, Governor Christopher Bond has asked MSMA members to evaluate state regulations that relate to the medical profession. Through this evaluation process, the governor's staff hopes to update rules and regulations that operate unfairly and/or cause unnecessary delays in paperwork.

Send your evaluations and recommendations to MSMA, P.O. Box 1028, Jefferson City, MO 65102.

An added complication...
n the treatment of bacterial bronchitis*



Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

t Summary.
sult the package literature for prescribing
rmation.

:ations and Usage: Ceclor® (cefaclor, Lilly) is
:ated in the treatment of the following infections
ı caused by susceptible strains of the designated
oorganisms
ɔwer respiratory infections, including pneumonia
ed by *Streptococcus pneumoniae (Diplococcus*
moniae), Haemophilus influenzae, and *S*
enes (group A beta-hemolytic streptococci)
ɔpropriate culture and susceptibility studies
ıld be performed to determine susceptibility of
ausative organism to Ceclor

raindication: Ceclor is contraindicated in patients
known allergy to the cephalosporin group of
ıotics.

ıings: IN PENICILLIN-SENSITIVE PATIENTS,
ALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED
IOUSLY THERE IS CLINICAL AND LABORATORY
ENCE OF PARTIAL CROSS-ALLERGENICITY OF THE
CILLINS AND THE CEPHALOSPORINS, AND THERE ARE
ANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO
DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER
NTERAL USE).
tibiotics, including Ceclor, should be administered
ously to any patient who has demonstrated some
of allergy, particularly to drugs.

autions: If an allergic reaction to cefaclor occurs,
rug should be discontinued, and, if necessary, the
nt should be treated with appropriate agents, e g ,
sor amines, antihistamines, or corticosteroids
olonged use of cefaclor may result in the
growth of nonsusceptible organisms Careful
rvation of the patient is essential. If superinfection
rs during therapy, appropriate measures should
ken
sitive direct Coombs tests have been reported
g treatment with the cephalosporin antibiotics. In
itologic studies or in transfusion cross-matching
edures when antiglobulin tests are performed on
ninor side or in Coombs testing of newborns
e mothers have received cephalosporin antibiotics
e parturition, it should be recognized that a
ive Coombs test may be due to the drug
clor should be administered with caution in the
ence of markedly impaired renal function Under
a condition, careful clinical observation and
atory studies should be made because safe
ge may be lower than that usually recommended
a result of administration of Ceclor, a false-
ve reaction for glucose in the urine may occur
has been observed with Benedict's and Fehling's
ons and also with Clinitest® tablets but not with
ape® (Glucose Enzymatic Test Strip, USP, Lilly)
age *in Pregnancy*—Although no teratogenic or
rtility effects were seen in reproduction studies
ce and rats receiving up to 12 times the
num human dose or in ferrets given three times
aximum human dose, the safety of this drug for
ı human pregnancy has not been established
enefits of the drug in pregnant women should
ighed against a possible risk to the fetus
age *in Infancy*—Safety of this product for use in
s less than one month of age has not been
ished.

Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

Ceclor®
cefaclor

Pulvules®, 250 and 500 mg

Adverse Reactions: Adverse effects considered related to cefaclor therapy are uncommon and are listed below

Gastrointestinal symptoms occur in about 2 5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90)

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100) Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported Anaphylaxis has also been reported

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain—Transitory abnormalities in clinical laboratory test results have been reported Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician

Hepatic—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40)

Hematopoietic—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40)

Renal—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200) [103080R]

---

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H influenzae*[8]

Note: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever See prescribing information

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7 Data on file, Eli Lilly and Company
8 Principles and Practice of Infectious Diseases (edited by G L Mandell, R.G. Douglas, Jr , and J E Bennett), p 487 New York. John Wiley & Sons, 1979

Lilly

Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285

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Illustrations should be glossy prints (black and white) or drawings in India ink on white paper. They should not be mounted and name of author and figure number should be penciled lightly on the backs. Legends should appear on a separate sheet.

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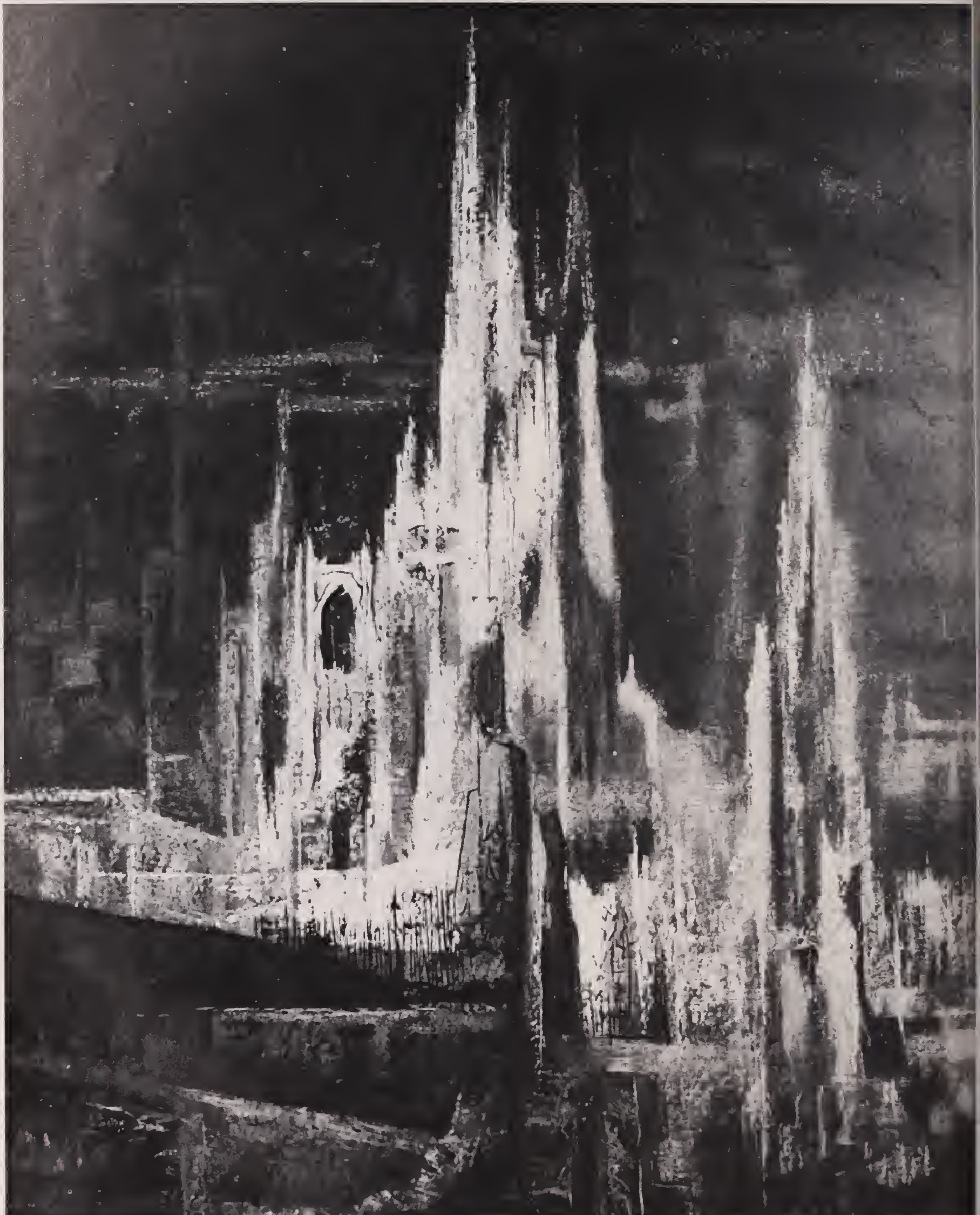

Reproduction of a painting, "Things To Be Remembered," by Raphael Gleitsman.

Editor's Corner

DESIDERATA

GO PLACIDLY AMID THE NOISE & HASTE, & REMEMBER WHAT PEACE THERE MAY BE IN SILENCE. AS FAR AS POSSIBLE WITHOUT surrender be on good terms with all persons. Speak your truth quietly & clearly; and listen to others, even the dull & ignorant; they too have their story. ❧ Avoid loud & aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain & bitter; for always there will be greater & lesser persons than yourself. Enjoy your achievements as well as your plans. ❧ Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time. Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of heroism. ❧ Be yourself. Especially, do not feign affection. Neither be cynical about love; for in the face of all aridity & disenchantment it is perennial as the grass. ❧ Take kindly the counsel of the years, gracefully surrendering the things of youth. Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with imaginings. Many fears are born of fatigue & loneliness. Beyond a wholesome discipline, be gentle with yourself. ❧ You are a child of the universe, no less than the trees & the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should. ❧ Therefore be at peace with God, whatever you conceive Him to be, and whatever your labors & aspirations, in the noisy confusion of life keep peace with your soul. ❧ With all its sham, drudgery & broken dreams, it is still a beautiful world. Be careful. Strive to be happy. ❧ ❧

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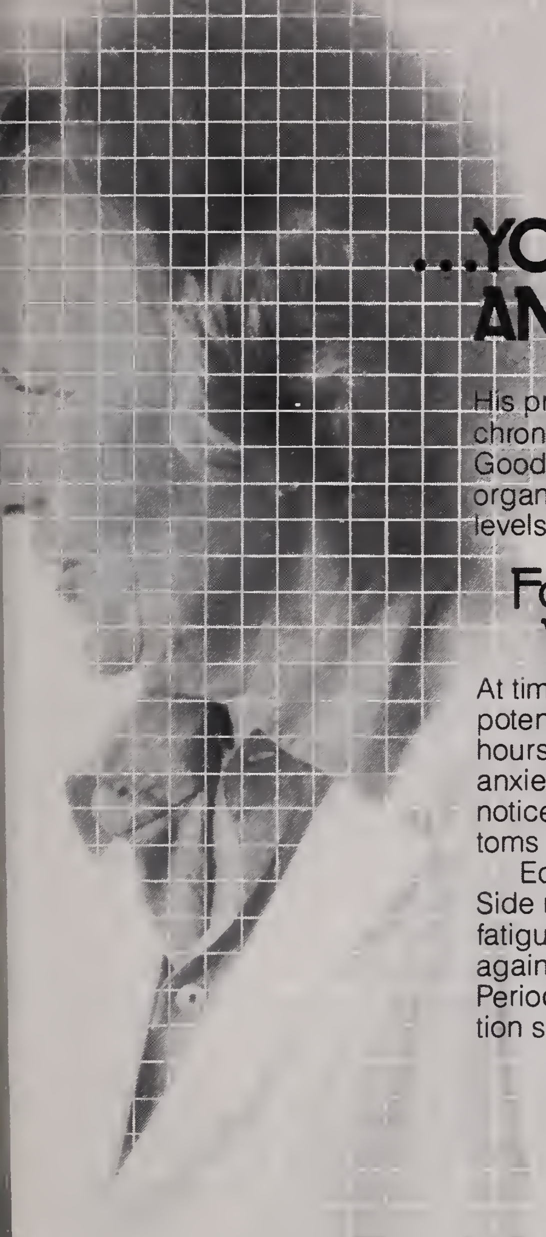

...YOU KNOW IT'S REALLY ANXIETY SYMPTOMS

His presenting symptoms: palpitations, chest pain, chronic exhaustion and occasional difficulties in breathing. Good reason for concern. A complete workup uncovers no organic dysfunction, but it *does* reveal excessively high levels of anxiety and apprehension.

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At times like this, Valium (diazepam/Roche) can be a potent therapeutic ally. It works promptly. Within just a few hours, the patient begins to feel calmer. And in a few days, anxiety relief not only becomes more pronounced but a noticeable reduction in anxiety-generated somatic symptoms also occurs.

Equally important, Valium is generally well tolerated. Side reactions more serious than drowsiness, ataxia and fatigue are rare. Patients should, of course, be cautioned against driving or drinking alcohol while on Valium therapy. Periodic reassessment of the need for antianxiety medication should also be performed.

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Indications: Management of anxiety disorders, or short-term relief of symptoms of anxiety Anxiety or tension associated with the stress of everyday life usually does not require treatment with an anxiolytic Symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal, adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies The physician should periodically reassess the usefulness of the drug for the individual patient

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy

Warnings: Not of value in psychotic patients Caution against hazardous occupations requiring complete mental alertness When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication, abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures Advise against simultaneous ingestion of alcohol and other CNS depressants Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence

> ***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed, drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation. The clearance of Valium and certain other benzodiazepines can be delayed in association with Tagamet (cimetidine) administration. The clinical significance of this is unclear.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy

Dosage: Individualize for maximum beneficial effect. *Adults.* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d., alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed, adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated (See Precautions.) *Children.* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

How Supplied: For oral administration, Valium scored tablets—2 mg, white, 5 mg, yellow; 10 mg, blue—bottles of 100* and 500.* Prescription Paks of 50, available in trays of 10.* Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25,† and in boxes containing 10 strips of 10.†

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Basal Cell Carcinomas: Treatment With Intralesional Injection of Lymphokine Fraction

The most common human cancer is the basal cell carcinoma. These cancers rarely metastasize, they may be observed easily, they do not often cause death, patients rarely have extensive disease and several methods of treatment are effective. Basal cell cancers may be treated with radiation therapy, surgery, chemotherapy, cryosurgery, chemosurgery and immunotherapy. Immunotherapy is a promising alternative to the other treatment methods[1] because the others have obvious, inherent disadvantages.

Recently attention has focused on biological agents classified as biological response modifiers by the National Cancer Institute.[2] Among these agents which include interferons and thymic hormones, are the *lymphokines*. Lymphokines are soluble, secretory products of activated lymphocytes that stimulate responses in other lymphocytes, monocytes, neutrophils and most cells.[3] Original studies on lymphokines injected into metastatic skin lesions were reported previously[4] and Holtermann *et al* published results of treatment of basal cell carcinomas by lymphokine preparations from peripheral blood lymphocytes.[5] Recent studies on lymphokines and skin cancers have been reported from Hungary.[6]

Cancer Research Center scientists have been conducting studies on *lymphokine AE*, from a human lymphocyte cell line, RPMI 1788. (Lymphokine AE — acid extract — refers to the acid soluble fraction of lymphokines described in reference 7.) A one-year pilot study on skin cancer patients was begun in March, 1980. The purpose of this effort was to study the effect of the intralesional injection of lymphokine fraction AE in selected patients with basal cell carcinomas at the Ellis Fischel State Cancer Hospital. Preparation of the lymphokine fraction used in this study has been described in detail[4, 7] and refinements of preparation are taking place presently in the Cancer Research Center laboratories.[7] Written, informed consent was secured from all patients on forms approved by the Cancer Research Center and the Ellis Fischel State Cancer Hospital Institutional Review Board under the rules of the Helsinki Convention, and the study was carried out under FDA IND No. BB 1365.

The study included the following critera:

1. All lesions were histologically documented prior to lymphokine injection.
2. One hundred percent follow-up was possible on all patients but one, who had an incapacitating coronary occlusion and was unable to return to the clinic.
3. Conventional therapies were used for all lesions that did not show 100% disappearance in a reasonable period of time and 100% regression was proved histologically if the confirmatory biopsy did not cause undue trauma.

Fourteen patients who had 20 primary lesions were treated with lymphokine AE. One other

Although standard methods of treatment for basal cell carcinomas of the skin may be adequate, these methods have inherent disadvantages. An alternative treatment method using an immunotherapy agent called *lymphokine AE* has the advantage of no side effects, no disfiguration and no discomfort for the patients. In addition, for some patients, lymphokine AE has caused 100% regression of their tumors over a one-year period of observation.

At Ellis Fischel State Cancer Hospital, Dr. Rodes is Associate Director of Clinical Affairs, Dr. Lopez is Staff Surgeon and Dr. Perez-Mesa is Chief Pathologist. At the Cancer Research Center, Dr. Rodes is Administrative Director and Coordinator of Clinical Investigations, Dr. McEntire is Assistant Scientist and Laboratory Manager, Dr. Lopez is Assistant Scientist; Dr. Perez-Mesa is Senior Scientist, Ms. Gay and Ms. Decker are Clinical Research Assistants, Dr. Papermaster is Scientific Director and Ms. Kaltenbach is Administrative Assistant in Charge of Grants and Manuscripts.

This investigation was supported by Grant No. CA-25740 and Grant No. CA-29145 from the National Cancer Institute, National Institutes of Health, DHHS; the Order of the Eastern Star; Fraternal Order of Eagles, and the A.P. Green Foundation.

patient had a recurrent lesion in the inner canthus of the eye after surgery and radiation therapy. This recurrent lesion was treated with lymphokine AE injected intralesionally and the response to lymphokine treatment was dramatic.

All patients received a skin test by intradermal injection of 0.1 ml of lymphokine AE and intralesional administration began as follows:

Group 1	*Volume*	*Unitage*
Day 1	0.1 ml	9.0
3	0.5 ml	45.0
8	1.0 ml	90.0

Some patients were given a 1.0 ml injection, after skin testing, and then the injection was escalated to 3 ml if there were no side effects or response from the first dose.

Soon it became apparent that the schedule was too rigid. Because of the complete lack of local tissue toxicity[4] or patient discomfort, we began to use higher concentrations of lymphokines in smaller volumes of diluent. Again, patients experienced no pain or clinical tissue trama, even when we dissolved up to 3 ampules (180 units) of extract in 0.5 cc to 1.0 cc. We selected small lesions, such as superficially-spreading basal cell cancers, thus lessening the volume of most of our injections. Indeed, patients were able to tolerate daily injections well.

One physician (NDR) observed each patient during the entire study period. If the lymphokine trial had what was considered to represent an adequate time to respond and if the tumor still persisted clinically, another biopsy was done to confirm the persistence and the tumor was treated by conventional surgery or radiation therapy. As a consequence, no patient suffered any morbidity because of delay in treatment.

Fifteen lesions in 13 patients did not respond completely to lymphokine AE. Although some of these lesions showed up to 90% regression, we still considered *any* remaining tumor a treatment failure. No specific histopathologic processes were seen under light microscopy examination of the tumors that were excised after lymphokine therapy.

Four patients, including the one with the recurrent lesion in the inner canthus of the eye, had complete clinical regression of lymphokine-treated lesions. All have been observed for more than one year with no sign of recurrence. Biopsies were done on two of these, confirming the fact that the lesions are eradicated. The other two lesions were in areas where biopsy is considered injudicious, but clinically these lesions appear to have regressed completely.

The four lesions that regressed completely were alike in the following ways:

1. Exposed skin had actinic changes;
2. The lesions were shallow and superficially ulcerated;
3. The lesions were not more than 1 cm in greatest dimension;
4. An immediate erythematous flush appeared in and around the lesions during injection; this phenomenon did not occur with the first injection but, rather, during subsequent injections;
5. All lesions regressed within four to seven days after the lymphokine injections were begun and complete regression occurred from seven to 14 days.

Such administration allows for close contact between the lymphokine and the tumor cells. When

(Continued on page 739)

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Results of Surgery for Carcinoma of the Head of the Pancreas: 1960-1980

An Overview

Cancer of the pancreas remains as one of the most fatal cancers with a five-year survival rate of less than 1%. For reasons as yet unclear, the incidence is increasing as is the mortality,[1] especially in men. In 1981, it is estimated to be the fifth most common cause of death from cancer and is exceeded only by lung, colon, breast and prostate. It is the fourth most common cause of cancer deaths in men of all ages.[2]

Ductal adenocarcinoma accounts for 90% of pancreatic cancers. In two thirds to three fourths of the cases, it occurs in the head of the pancreas. Only 10% to 15% of these cancers can be resected.[3, 4] Even so, arguments about types and extents of resection abound.

Although only 10% to 15% of patients with pancreatic cancers are found to have resectable tumors, the operation of choice, Whipple resection (WR) or total pancreatectomy (TP), appears controversial. Some surgeons[4] suggest performing bypass procedures even for resectable lesions because of the low number of long-term survivors and high operative mortality after both Whipple resection and total pancreatectomy.

Disadvantages of Whipple resection that are frequently mentioned are its inadequacy as a cancer operation because of the high incidence of multicentric carcinoma in situ (as high as 31%[5]) and its failure to remove involved regional lymph nodes. Whipple resection has a postoperative morbidity approximating 50%, with a significant incidence of frequently fatal anastomotic leak from pancreatojejunostomy.[6]

Total pancreatectomy was introduced to avoid the above-mentioned objections to Whipple resection. Avoidance of anastomosis between the pancreatic remnant and jejunum should lower postoperative morbidity, but total pancreatectomy is still beset by significant morbidity, ranging from 38% to 50%.[5, 7, 8] Although permanent endocrine and exocrine pancreatic insufficiency follows after total pancreatectomy, the insulin-dependent diabetes mellitus is easily managed in the majority of patients,[9] and the exocrine insufficiency with steatorrhea can be controlled by pancreatic enzyme replacement. Finally, removing the entire gland with more adequate lymph node dissection should remove, in theory, all malignant foci[7, 9] and decrease local and regional recurrence.

Previous reviews of surgical treatment for pancreatic cancer from multiple institutions have not accumulated more than 300 to 500 patients undergoing pancreatic resection,[4, 8] with only one report[3] reviewing about 1,750 pancreatic resections.

The purpose of this study is to review the English literature on this subject in the last two decades as obtained from *Index Medicus* from 1960 to 1980 and to compare the results of postoperative mortality, duration of survival and five-year survival data in the last two decades with each type of resection. The limitations of data accumulation from uncontrolled studies[10] are

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Pancreatic cancer is one of the most fatal cancers. Its incidence is increasing. Ductal adenocarcinoma accounts for 90% of pancreatic cancers, and it occurs in the head of the pancreas in two thirds to three fourths of the cases. The type and extent of surgical resection of carcinoma of the head of the pancreas remain a subject of debate.

Dr. Bubenik is a Fellow in Surgery at Ellis Fischel State Cancer Hospital and the Cancer Research Center. Dr. Lopez is Staff Surgeon at the Hospital and Assistant Scientist at the Research Center.

This investigation was supported in part by Grant No. CA-17946 from the National Cancer Institute, National Institutes of Health, Department of Health and Human Services.

TABLE 1
RESULTS OF WHIPPLE RESECTION FOR DUCTAL CARCINOMA OF THE PANCREATIC HEAD IN 2521 PATIENTS, 1960-1980 (60 REPORTS)

Patients Having Resections	*Operative Mortality*	*Five-Year Survival*	*Mean Survival*
1960-1970 1,222	24.1% (0-51.9)	7.6% (0-15.4)	16.8 mo. (8.5-27.0)
1971-1980 1,299	19.3% (0-42.9)	5.2% (0-25.0)	12.7 mo. (4.8-27.0)
1960-1980 2,521	21.7%	6.0%	13.4 mo.

realized.

Sixty-one reports were reviewed concerning 2,679 pancreatic resections published from 1960 to 1980 in the United States, Japan, Scandinavian countries, Great Britain, Canada and Malaysia. Answers to the following questions were sought:

1. During the last two decades, has there been a significant improvement of operative mortality and survival rates after Whipple resection, as experiences of single institutions would indicate?[5, 6, 11]

2. How does total pancreatectomy compare to Whipple resection in terms of operative mortality, five-year survival rate and mean duration of survival?

3. If operative mortality of Whipple resection and total pancreatectomy is still "prohibitive," should even resectable lesions be palliated by a biliary and gastrointestinal bypass?

To answer the first question, it seems that despite a decrease in operative mortality of Whipple resection from 24% to 19% in the last two decades, it remains around 20% (Table 1) and is statistically (unpaired t test) not different from 1960 to 1970 because of large data variance. For the same reason, no difference was noted in the five-year survival (5%) and mean duration (13 months) when data from the decade of 1971 to 1980 are compared to those of the previous decade. Since some studies span over more than 25 years, it is possible that the mortality data may not reflect recent advances of preoperative and postoperative care. However, when patients operated on prior to and after 1970 were considered, no statistical difference in operative mortality was noted. Whether patient selection, surgical expertise or other factors are responsible is only speculative.

In answer to the second question, the mortality of total pancreatectomy (17.7%) is not significantly better than that of the Whipple resection (19.9%) (Table 2). Despite a longer survival (18 months) and higher five-year survival rate (10%) after total pancreatectomy, no statistical difference from Whipple resection was found (paired t test). Again, this fact is easily understood by large variance of data from multiple institutions. The data presented in Table 2 are collected from authors performing both operations (paired t test).

The wisdom of both standard (Whipple resection) and extended (total pancreatectomy) operations is questioned frequently because of the low survival rate and high operative mortalities of 20% and 18%, respectively, which may be decreasing in major institutions due to progressive experience but still remain high across the surgical community. Despite theoretical advantages of total pancreatectomy, results of this review support the opinion[12] that improvement in five-year survival rates or mean duration of survival after total pancreatectomy is only marginal (Table 2). Conversely, it could be argued that since operative mortality is similar, total pancreatectomy should be carried out because of a benefit, albeit marginal, in survival for the patient. Future studies may translate the theoretical advantages of total pancreatectomy into a real improvement in survival.

Because of uncontrolled data, it cannot be stated currently whether Whipple resection or total pancreatectomy is a preferable approach to a

TABLE 2
COMPARISON OF WR AND TP FOR DUCTAL CARCINOMA OF THE PANCREATIC HEAD IN 772 PATIENTS, 1967-1980 (10 REPORTS)

Patients Having Resection		*Operative Mortality*	*Five-year Survival*	*Mean Survival*
WR	614	19.9% (5.3-31.8)	6.3% (0-15.4)	13.0 mo. (7.6-19)
TP	158	17.7% (0-33.3)	9.6% (0-33.3)	18.0 mo. (4-29.3)

resectable malignancy of the head of the pancreas. Each case has to be judged individually. One of the largest institutional experiences with both operations in this country is from the Mayo Clinic and the conclusions are worth quoting:

"At this time, the Whipple procedure remains the surgical procedure of choice for radical resection of apparently localized ductal adenocarcinoma of the head of the pancreas unless (a) the tumor extends across the usual margin of resection into the body of the gland, (b) the condition of the remaining pancreas does not permit a safe pancreatojejunal anastomosis, or (c) the patient already has insulin-dependent diabetes."[5] For carcinoma of the head of the pancreas that has already metastasized to lymph nodes or distant regions, a bypass procedure is the treatment of choice[13] and combined modality approach to such cases with newer modalities of radiation therapy and/or chemotherapy to increase survival is gaining favor rapidly.

According to Moossa *et al*,[14] the surgeon who explores the abdomen of a patient with a potentially resectable pancreatic cancer has a responsibility to the patient and physicians who may be involved in the subsequent management. He must obtain a tissue diagnosis and adequately stage the disease to delineate its extent. The best temporizing procedure for the inexperienced surgeon who finds a mass in the head of the pancreas in a jaundiced patient is to perform a simple cholecystostomy without an unnecessary dissection and to transfer the patient for definitive treatment.[14]

The arguments for performing bypass procedures rather than resections are that almost all patients can be so treated with minimal operative mortality and that resective procedures may deny up to 20% of the patients additional months of life due to the operative mortality of major resections.[12, 15] However, bypass procedures do preclude the occasional definitive cure[16] and postoperative survival is shorter[17] than after resection, although this is controversial.[4] To further strengthen the arguments against bypass procedures in resectable cancer of the head of the pancreas, it would be necessary to decrease the operative mortality or to increase the length of survival and, preferably, to do both.[15]

Although the main problems affecting survival of the patient with pancreatic cancer are delayed diagnosis and, to a lesser degree, the extent of resection,[17] it is currently difficult to improve results, even with newer diagnostic tools such as CT scanning, ultrasound, retrograde pancreatography, angiography and others. Screening methods for detection of pancreatic cancer at a curable stage have yet to be developed. Preventive measures to decrease its high incidence remain a target for the future.

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Basas Cell Carcinomas

(Continued from page 736)

the Cancer Research Center scientists have the lymphokine preparation purified and concentrated for maximum potency, we think it may be feasible to use the lymphokine AE selectively in the outpatient clinic, where the management of genodermatosis and even simple multiple skin cancers can be a perplexing and persistent problem.

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Multisite Cancer Screening

A Cancer Control Experience in Secondary Prevention

In 1974, the Cancer Research Center in Columbia, Mo. was selected as the site for one of 27 Breast Cancer Detection Demonstration Projects in the United States. This was a six-year contract funded by the National Cancer Institute and the American Cancer Society to assess the merits of physical examination, thermography and Xeromammography in detecting early breast cancers in asymptomatic women.

The findings of the Missouri project have been published in prior issues of MISSOURI MEDICINE,[1-6] national journals[7, 8] and as chapters in two books.[9, 10] Several features have made the Cancer Research Center project unique, but the long-term, sustained participation of the women and the high level of cooperation by the physicians of Missouri are two outstanding features.

Encouraged by these factors, as well as by the solid evidence that clinically occult breast cancer can be detected reliably in asymptomatic women, the breast screening program was expanded to also include the sites of uterine-cervix and colon-rectum. Funding support for the new Women's Cancer Control Program was obtained through the Missouri Division of Health and by the voluntary contributions from participants. Again, the response of Missouri women is excellent. Since women entered this selective screening effort in September, 1979, more than 10,000 total project visits have been recorded.

We are well aware of the fact that screening for the early detection of cancer requires that certain conditions must be fulfilled, and quality control of all aspects of such a program is critical.

BREAST CANCER DETECTION

The experience of the 27 national Breast Cancer Detection Demonstration Projects since 1973 has established the value of the combination of physical examination and mammography in the detection of curable breast cancers.[6, 10, 11] In cancers detected by mammography only in the Columbia project, 89% had no histologic evidence of axillary lymph node metastases. Even in those patients who did have clinical evidence of disease as determined by our nurse-clinicians, 63% had lymph nodes that contained no metastases according to the pathology report, as compared to the usual 50% or less when the patient discovers the disease herself. Seventy-seven percent (77%) of all of the women who had cancers detected also had lymph nodes that contained no cancer confirmed by the biopsy specimen. Long-term survival will, of course, be the ultimate test of benefit. Based on pathological staging alone, however, we can expect approximately 80% to survive ten years.

In the Women's Cancer Control Program, we have both 2,481 new participants (i.e., never before screened) plus a group of 3,595 women who have been in the Breast Cancer Detection Demonstration Project, most of whom have been screened annually for five years. The total number of breast cancers detected in the Women's Cancer Control Program to date is 41. Twenty (20) have been found in the new participants, which is the observed prevalence rate, and 21 in the previously screened group, which gives the observed incidence rate.[2] (To date, 37 of every 100 breast biopsies done have indicated cancers.) Based on incidence rates from the National Cancer Institute SEER program, the *expected* incidence is about 1/1000. In our experience, therefore, both the prevalence rate and the incidence rate (8/1000 and 3/1000) are unexpectedly high. (The incidence figure is based on 6,928 visits performed on previously screened women through the second year of the Women's Cancer Control Program.) Clearly, a large number of asymptomatic Missouri women have detectable early breast cancers with high degrees of curability.

COLON-RECTUM

Although lung cancer kills more men and

breast cancer kills more women, colorectal cancer is the leading cause of death and is the most common visceral cancer in both men and women.[12] The common symptoms of rectal bleeding, irregularity of bowel movements and abdominal discomfort usually indicate far advanced disease, with 50% of the patients having either regional or distant metastases.[13] The usual five-year survival rate in all treated patients is only 40%. When the disease is localized to the bowel, however, the five-year survival is 67%.[14] Obviously, our goal in the management of colon and rectal cancer is to detect the disease when it is localized to the bowel mucosa. In this circumstance, the expected five-year survival rate is 90%.[15]

Methods being tested to achieve this goal are reported in two controlled studies in the United States[16, 17] as well as in controlled screening studies in England.

Screening for colorectal cancer in the Women's Cancer Control Program is accomplished by the use of Hemoccult slides. Each participant is mailed a Hemoccult II slide kit along with detailed instructions for its use. After two days on a meat-free, high-fiber diet, the participants collect stool specimens from three consecutive bowel movements. This process concludes on the day of their scheduled appointment so that the fresh samples can be evaluated. It is known that the accuracy of the test diminishes if samples are not fresh.

Ninety-seven percent (97%) of our participants complete this process, indicating that the test is esthetically acceptable and, under controlled conditions, the slides can be successfully prepared by the participant at home. Rarely do we have slides that are rendered uninterpretable because of poor preparation.

Under these conditions, at least one Hemoccult slide out of six (47%) indicates blood in the stool specimen. Of the 357 positive slide reactions, 223 have been investigated. By "investigated," we mean that the participant has seen her physician of preference and some effort has been made to identify the source of blood loss. These efforts range all the way from a repeat of the Hemoccult slide to an air-contrast barium enema and colonoscopy.

From our follow-up studies, 20 neoplasms have been identified in these 223 Hemoccult-positive cases (14 polyps and six invasive cancers) for a rate of only 9%. This compares poorly with the rate of 50% (polyps and cancers) from the Strang Clinic-Memorial study.[18] Our apparent false-positive rate of 9% (20/223) is too high when it is compared with the reported false-positive rate of 1% to 3%.[19]

It is unlikely that it is because of the Hemoccult test itself since this test has the sensitivity purposefully *reduced* so as to eliminate as many false-positive results as possible, while maintaining an acceptable rate of false-negative. Also to be considered is the possible failure of the women to observe the dietary instructions, but we believe that most women do comply. Therefore, this high rate of false-positive (i.e., positive Hemoccult and no disease found to explain it) may be due, in part, to the diagnostic studies the patient undergoes after the Hemoccult has been reported to her physician. Ideally, an air-contrast barium enema and a colonoscopy should be performed, but we recognize these resources are not readily available statewide. At least a routine barium enema or air-contrast could be done in a community hospital, and digital rectal and proctosigmoidoscopic examinations could be carried out in the physician's office. If these minimal diagnostic procedures were accomplished on every participant with occult blood, the identification and subsequent removal of tumors would most certainly increase, whether they are benign, premalignant

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The Women's Cancer Control Program at the Cancer Research Center is a screening project for women. Participants undergo early detection procedures for cancers of the breast, colon-rectum and uterine-cervix. Response to the program by both women and physicians has been enthusiastic and results of the screening procedures are encouraging.

Ms. Pearson is Coordinator of the Women's Cancer Control Program, Dr. Rodes is Administrative Director and Coordinator of Clinical Investigations, Dr. Blackwell is Senior Scientist in Radiology and Dr. Perez-Mesa is Senior Scientist at the Cancer Research Center. Also, Dr. Rodes is Associate Director of Clinical Affairs and Dr. Perez-Mesa is Chief Pathologist at Ellis Fischel State Cancer Hospital.

This investigation was supported in part by Grant No. RR-05284 from the National Institutes of Health and Grant No. CA-17946 from the National Cancer Institute, National Institutes of Health, DHHS.

or invasive cancers. Colon cancers that arise from preexisting polyps could be prevented and high-risk groups could be identified and, thereafter, undergo close colorectal follow-up.

Cervix

In 1930, squamous cell carcinoma of the uterine-cervix was the leading cause of cancer death in women. Today, the disease has declined to fifth or sixth.[20] This decline was most notable in 1950, but it has leveled off since then in most age groups.

Most physicians attribute this to the extensive use of the Pap smear since, while invasive cancer has declined, the incidence of carcinoma in situ is increasing. Other factors could be improved personal hygiene and public education programs. In any event, the Pap smear is a valuable screening technique because it is inexpensive, widely available and presents no risk except for that which accompanies over-diagnosis. Many recommendations regarding the frequency of thc examinations have been published both in this country and abroad. In truth, no one knows the "ideal" frequency, but the American College of Obstetrics & Gynecology recommends that it be done annually. We concur.

The consulting cytology laboratory has several quality control measures. One of every ten cases is randomly reviewed by the pathologist, as are all the abnormal cases.

In our total of 6,074 participants in the first two years, 3,335 have returned for a second annual appointment. Pap smears were offered to all women on each annual visit. On 2,113 visits, the women declined, usually because of a recent Pap smear by their private physicians. Of the 7,296 Pap smears examined, 79 were Class II; 13 were Class III; two were Class IV; and three were Class V. Our recommendation for Class II smears is to repeat the smear in six months. The women with Class III through Class V smears should have a thorough diagnostic workup that consists of colposcopy, directed cervical biopsies and, when indicated, and endocervical curettage. A diagnostic conization may be necessary in selected cases.

Four of the 7,296 Pap smears were interpreted as cancers compared to an expected incidence of .3/1000.

Summary

High quality screening for three major cancers in women can be accomplished and the women of Missouri respond favorably to this opportunity. The screening not only benefits the participant who has a curable detected cancer but, also, the woman who has no abnormality detected. In the case of breast cancer detection, the degree of confidence the participant can have in the accuracy of the report (true-negative) is 98%.[10]

Furthermore, the value of the Women's Cancer Control Program goes beyond the direct benefit to the participants. Both the patient and her physician are educated. A program of this type is ideal for evaluating and testing new techniques and new technology in cancer detection, so that the community physician can be shown what can be expected from each of the modalities and, perhaps, choose to include the effective ones in his practice. The physician can learn from the Women's Cancer Control Program what methods are either too costly, require too high a level of professional expertise or lack an acceptable level of sensitivity and specificity for him to seek and apply these in his office or hospital community. More complex evaluation can be made, depending on the observer.

Conclusion

Until yet unmeasurable biologic factors can be quantified, the fact is that early detection of a cancer is the single most important element in patient survival. However, by the time a cancer has reached the symptomatic stage, the disease is probably widespread and ultimately incurable. This belief has been the impetus for programs such as the Women's Cancer Control Program at the Cancer Research Center that offer cancer screening for asymptomatic individuals.

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WILLIAM G. KRAYBILL, M.D., *Columbia*

Treatment of Liver Metastasis From Colon Cancer

COLORECTAL CANCER was second only to lung cancer in the number of newly diagnosed cancer cases in 1980.[1] Although the surgical treatment of this disease is well developed, there has been little improvement in survival of patients. Forty thousand deaths each year result from this disease. In one half of these cases, the patient dies either from or with hepatic metastases.[2] At laparotomy, 25% of the patients with carcinoma of the colon have liver metastases.[3] Median survival of patients with colorectal cancer metastatic to the liver is only 120 to 150 days.[4] The management of liver metastases, therefore, is an integral component of a total approach to the patient with colorectal cancer. Multiple therapies have been proposed for hepatic metastases with systemic chemotherapy used most commonly. However, this therapy has not prolonged survival.[5]

Presently, resection of a solitary hepatic metastasis is the only procedure that produces prolonged survival. Wilson and Adson reported a 28% five-year survival rate in 52 patients with metastatic colorectal cancer treated with hepatic resection.[6] More recently, Adson and VanHeerden have described 34 patients with metastatic colon lesions treated by major hepatic resection.[7] There were two postoperative deaths. Of the 32 evaluative patients, 13 (41%) have survived three or more years.[7] Although patients with solitary metastasis may benefit from resection, the number of patients who are candidates for this procedure is small. The percentage of patients with resectable liver metastases has been reported variously between 5% and 30%.[8]

Because of the limited number of patients who are candidates for resection and the limited efficacy of systemic chemotherapy, other therapeutic options are being evaluated. One approach has been to decrease viable tumor by devascularizing the tumor-bearing liver, ligating either a portion of the portal vein or the hepatic artery. Most such devascularization procedures have involved hepatic artery ligation. The consensus is that hepatic artery ligation can be done with acceptable morbidity and mortality in most patients.[9, 10] Responses up to 50% have been reported, but they have been short-lived and patient survival is not increased by hepatic artery ligation alone.[10, 14]

Kim and colleagues reported a relationship between the vascularity of the liver tumor and the response to hepatic artery ligation and infusional therapy.[11] In exacting studies using Xenon-133 clearance, Taylor and associates investigated the blood supply of human colorectal liver metastasis in vivo before and after hepatic artery ligation.[12] The initial distribution images indicated a predominant arterial perfusion to metastases. After hepatic artery ligation, however, portal vein perfusion to metastases increased to a statistically significant degree. A compensatory hemodynamic mechanism thus exists which may account for the poor results with hepatic artery ligation alone.[12]

Arterial and portal vein infusions of chemotherapeutic drugs have been used, with variable success, for patients with primary or metastatic tumors of the liver.[13, 14] In the last two years, the pharmacologic rationale for the use of intra-arterial chemotherapy has been evaluated. Cheung and Gross used a physiologically-based pharmacokinetic model to study the drug delivery characteristics of several drugs after both intravenous and intra-arterial infusion.[15] Only intra-arterially-administered 5-FU demonstrated a significant reduction in systemic availability of the drug, with subsequent increased tissue levels at the infused site. This results in decreased systemic toxicity.

Einsminger *et al* evaluated hepatic venous 5-FU and 5-fluoro-3-deoxyuridine levels in patients treated with these drugs by hepatic artery infusion.[16] High flow rates of intra-arterial drug were required because of the relative insensitivity of the drug assays used. There was 94% to 99% extraction of the 5-fluoro-2-deoxyuridine and 19% to 51% extraction of the 5-FU in one pass. With this technique, systemic 5-fluoro-2-deoxyuridine levels were about 25% of the corresponding systemic levels from peripheral venous infusion. Similarly, systemic 5-FU levels were about 60% of the corresponding levels with peripheral venous infusion.

Hashimoto demonstrated inactivation of mitomycin-C and 5-FU by human and dog liver homogenates and by the dog liver in vitro.[17] Largely on the basis of these data, Patt and colleagues evaluated hepatic artery infusion of mitomycin-C and 5-fluoro-2-deoxyuridine in 12 patients with colorectal cancer metastatic to the liver.[18] Cancers in eight of these patients previously had failed to respond to intravenous 5-FU-containing regimens. Cancers in two patients went into a complete remission while the hepatic tumors in four patients decreased 75%. The decrease in liver metastases in four patients was 50% and disease in two patients was stable. Overall, there was an 83% response rate, with a median duration of six to seven months and a median survival of 16 months.

The complications of intra-arterial infusion chemotherapy are of two types: drug-related and catheter-related. The former complications are related to the drug or drugs chosen and the dosage chosen. Complications related to various drug regimens have been reported and are similar to drug toxicity with systemic chemotherapy.[18-22] Catheter complications have been reviewed by Goldman and associates.[19] In this study, percutaneously-placed catheters were located most frequently from the femoral vessels. Major thrombus formation occurred in 28% of infused vessels. Only three of these patients became symptomatic. Of course, potential complications in patients who have operatively-placed catheters will be different and will include those complications resulting from the operation. Drug complications remain the same.

There is a lesser, but significant, experience with the infusion of cytotoxic drugs by the portal vein. Fortner and Pahnke reported the placement of a catheter via the middle colic vein into the portal vein for the administration of hepatic chemotherapy.[21] This method of drug administration was used in combination with operatively-placed hepatic artery infusion catheters. Taylor and co-workers have instituted a prospective study using adjuvant 5-FU by portal vein infusion in patients with colorectal cancer.[22] As of July 1979, 154 patients had been randomized to either surgical resection alone or surgical resection plus the infusion of 1 gm of 5-FU per day, by the portal vein for the postoperative first seven days.[22] Primary tumor site and stage were similar in the two groups. Also as of July, 1979, 23 deaths had occurred in the control group with 20 being due to recurrence. In the perfusion group, there have been seven deaths with five due to recurrent disease. These results were the first to suggest that adjuvant chemotherapy in colon cancer patients may be beneficial.

Systemic chemotherapy has not prolonged survival in patients with liver metastasis from colon cancer and resection of liver metastasis is possible only in the 5% to 30% of patients with solitary liver metastasis. 5-FU, 5-fluoro-2-deoxyuridine and mitomycin-C have been shown to be either selectively metabolized by the liver or bound by the liver.

With the selective infusion of these drugs into the liver, there will be less systemic toxicity with higher doses provided to the liver. The demonstration of a compensatory increase in portal vein flow following hepatic artery ligation underscores the importance of portal vein infusion as well as hepatic artery infusion in patients who have undergone hepatic artery ligation.

In spite of these encouraging data, a randomized trial between systemic chemotherapy and the various modes of selective infusional therapy will be necessary to demonstrate the efficacy of the latter.

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The limited, but encouraging, results from ligation of the hepatic artery or portal vein and either portal or hepatic artery infusion have led some authors to suggest that it may be advantageous to use both hepatic artery ligation and either portal vein or hepatic artery infusion concurrently. The rationale was that after destroying most of the tumor with ligation, the remainder could be treated with local high-dose chemotherapy by the infusion technique. Fortner and colleagues demonstrated that six of 12 patients receiving intra-arterial chemotherapy following hepatic artery ligation had objective improvement for an average duration of five months.[23]

Ramming and associates treated nine patients with extensive hepatic metastases from colorectal cancer with hepatic artery ligation and 5-FU given via the hepatic artery.[24] Eight of nine patients had clinical improvement. Five patients died with a mean survival of 10.4 months. Five of the patients had received 5-FU previously, but their cancers had failed to respond to the treatment. However, the cancers in these patients did respond to 5-FU given via the hepatic artery. This suggests that the route of administration is important in the treatment of colon metastasis to the liver.

Taylor evaluated the use of hepatic artery ligation in combination with both hepatic artery infusion and portal vein infusion in the treatment of patients with liver metastases.[25] Twenty-four patients were randomized into four groups. A no-treatment arm was compared to hepatic artery ligation and arterial infusion, to hepatic artery ligation with arterial and portal vein infusion, and to portal vein infusion alone. An increased survival rate was noted in the group that received hepatic artery ligation with arterial and portal vein infusion. Taylor suggested that this was because of the compensatory increase in portal venous blood flow resulting from hepatic artery ligation.

Resection of liver metastasis is possible only in the 5% to 30% of patients with solitary liver metastasis, and systemic chemotherapy has not prolonged survival in patients with liver metastasis from colon cancers. A randomized trial between systemic chemotherapy and the various modes of selective infusional therapy is necessary to demonstrate the efficacy of the latter.

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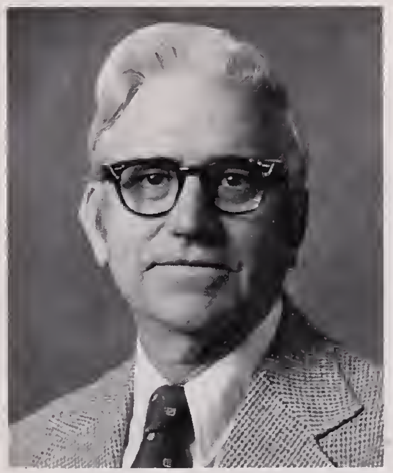
President's Message

HOSPITALS

Hospitals are a necessity for a majority of physicians. They have been partners in health care and have cooperated for many, many years. Yet, there also have been certain problems due to both us physicians and the hospitals. The hospital administrators often feel that physicians make demands on the hospital that are not realistic and physicians often feel that hospitals do not provide what is needed in personnel, reasonable cost, etc. for patients. Although the hospital-physician relationship has been good, it is now degenerating in some areas.

Hospitals are entering the practice of medicine. The leading hospital administrator in Missouri recently said that hospitals will go out of business if they provide acute care only. He did not give the details. To many of us, however, this means corporation practice of medicine which, at the present time, would be attractive. With hospitals operating various clinics, the physicians on salary and working limited hours are better able to take vacation/education leaves.

Certainly, I have no objections if the physicians want to enter this kind of practice. The problem I see is down the line when things get tighter. Who gets "tightened" first? Where will the cuts be made? Will we see them in the number of physicians . . . or will it be the salaries and benefits?



Eugene T. Hansbrough, M.D.

I think that we started this trend when we asked the hospitals to staff emergency rooms.

Other partners in health care fields need to "look" at the hospitals. In Missouri, there now are 15 hospitals that do not have contracts with Blue Cross insurance. I realize that both parties have reasons to consider and I do not know the details of their resistance.

As president of the MSMA, I do ask that we arrange a meeting for discussing this problem since it often creates a serious handicap for our patients, especially if they are members of an out-of-state Blue Cross group. In fact, these patients' hospitalization in a non-member hospital can spell economic disaster for them and their families.

I contacted Blue Cross first. They are eager to have a meeting of this kind. I then contacted administrators of hospitals that do not have contracts with Blue Cross. To my surprise, most of the administrators rejected the suggested meeting.

When we can't get along with each in our health care professions, how can we get along with the public?

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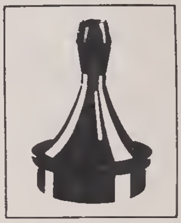

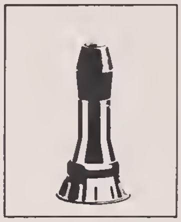

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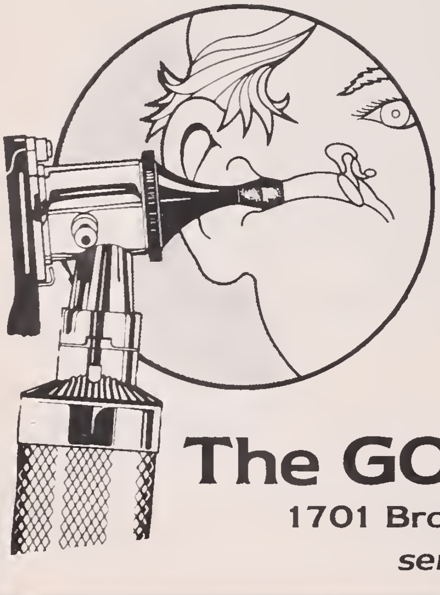

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Mrs. Jerry Meyer
President

If each member tries to work on the above areas during the holiday season and throughout the coming new year, our state will be a better place and we will all feel the true holiday spirit, as will our communities, for many days to come.

medical melange

Notes of interest from Here . . . . and There

The University of Missouri-Columbia School of Medicine has honored **Dr. Henry V. Guhleman,** Jefferson City, with the establishment of the Guhleman Award to be presented annually to the faculty member who provides outstanding service as a clinician-teacher. Dr. Guhleman resigned recently after 30 years as a teacher of psychiatry. He has retained his appointment as a clinical professor of psychiatry and will provide occasional teaching and consultation services. Dr. Guhleman also is chief psychiatric consultant to the Missouri Department of Mental Health and a consultant to the National Institute of Mental Health. He has been in private practice in Jefferson City for 30 years. A graduate of Washington University School of Medicine, he received his psychiatric training at Johns Hopkins University in Baltimore, Md.

Congressman E. Thomas Coleman of Missouri's Sixth District was the featured speaker at the annual combined session of the Buchanan County Medical Society and the St. Joseph Bar Association in St. Joseph in November. Presiding over the session were **Dr. Gary Dyer** and **Mr. Erroll Taylor** as heads of the two professional organizations. This was the 20th annual joint meeting of the medical society and bar association.

Dr. Mohammed Akhter, director of the Missouri Division of Health, recently announced the appointment of **Abraham Kaplan,** M.D. as hospital director of the Missouri State Chest Hospital in Mt. Vernon. The appointment became effective on November 16. A native of Argentina, Dr. Kaplan has practiced medicine in the United States since 1954 as a physician and surgeon, instructor and director of surgical research. Prior to accepting the appointment, he was chief of surgery at the VA Hospital in Wilkes-Barre, Pa. **Mr. Roy Grantham,** hospital business administrator has served as interim hospital director since the retirement of **Dr. Charles Christianson** in January of this year.

Dr. Arthur J. Graves, who has practiced medicine in Mt. Vernon since 1947, has retired because of health reasons. Dr. Graves attended Harvard University School of Medicine and served his internship at St. Luke's Hospital in New York. He was a battalion surgeon with the Marine Infantry during World War II. Dr. Graves is a member of the Mt. Vernon Chamber of Commerce.

Dr. Scott W. Snyder, Washington, has been elected president of Franklin-Gasconade-Warren County Medical Society. Other new officers are **Dr. Gary Baker,** Washington, vice-president; and **Dr. David Brunworth,** Washington, secretary-treasurer.

Dr. Kenneth W. Gentsch has been elected president and chief of staff of Missouri Baptist Hospital in St. Louis for the calendar year 1982. — **Dr. James F. Conant** of DeSoto was installed as president of the Jefferson Memorial Hospital in Festus on October 12 and will assume office on Jan. 1, 1982. He formerly served as chairman of the Family Practice Department at Jefferson Memorial. He has been in family practice in DeSoto the past five years. — **Dr. W. C. Dandridge, Jr.** has been elected chief of staff at Freeman Hospital in Joplin. Other officers elected in November are **Dr. J. Ronald Bopp,** president-elect, and **Dr. T. Keith Grebe,** Secretary-treasurer.

MSMA Members Receive Physician's Recognition Award

Seventy MSMA members qualified for the MSMA-AMA Physician's Recognition Award in October, 1981.

The award is a voluntary continuing medical education (CME) program designed to improve physician competence and recognize physicians who earn it by completing the educational requirements.

To qualify, each physician must accumulate 150 credit hours of CME within a three-year period. Sixty of the credit hours must be earned in Category I programs.

Names of additional PRA recipients will be published in MISSOURI MEDICINE as they are received from the AMA.

William C. Allen, Columbia
James O. Alyea, Columbia
Navin J. Amin, St. Louis
George D. Amromin, Columbia
Daniel R. Biello, St. Louis
James D. Bowen, Lincoln
Richard P. Bowles, Liberty
Wyatt W. Boydston, Odessa
Fritz A. Byrum, Ballwin
John C. Callenbach, Kansas City
James E. Campbell, Macon
Irving H. Clark, Kansas City
Charles H. Cozean, Cape Girardeau
Billy S. Crayton, Waverly
Ira R. Dash, St. Louis
Udaya N. Dash, St. Louis
Anson E. DeVera, St. Louis
Edward G. Dewein, St. Louis
Charles J. DiCecco, Florissant
Ervin H. Dorsch, Independence
Monaford D. Durnell, Kansas City
Pacita C. Dy, St. Louis
Rama G. Eachempati, St. Louis
James B. Earnest, Kansas City
David J. Elias, Independence
Virgil E. Flanders, Kansas City
John A. Gantz, St. Louis
William A. K. Glover, Mount Vernon
John A. Gragnani, Ellisville
Joseph R. Guastello, Kansas City
Stephen L. Hantman, Florissant
William H. Huffaker, Chesterfield
Jack Kayes, Clayton
Thomas R. Kluzak, St. Louis
Lalitha N. Kosuri, St. Louis
Samuel Krain, St. Louis
Robert E. Kuhlman, St. Louis
Said F. A. Mahmoud, Kansas City
Maria E. Manion, St. Louis
Edwin J. Masters, Sikeston
James E. McConchie, Independence
Sam J. Merenda, St. Louis
LeRoy J. Miller, Columbia
Robert S. Morrison, St. Louis
Joseph A. Mueller, St. Louis
Richard J. Mundis, Kansas City
Robert Oertli, St. Louis
Amado P. Ortillo, Kirkwood
Kerrin T. Papreck, Marshall
Vincent A. Previti, Springfield
George A. Richardson, Union
Dorothy L. Rodgers, Columbia
Larry A. Rosen, Kansas City
David S. Rosenberg, St. Louis
Robert E. Ryan, St. Louis
William F. Sanders, Kansas City
Glennon S. Schaefer, St. Louis
Stephen G. Slocum, St. Louis
Kenneth R. Smith, St. Louis
Jack T. Steele, Bridgeton
Pedro L. Suarez-Solar, St. Charles
Sterling Theobald, St. Louis
Jose R. Thomas-Richards, Kansas City
Thomas C. Thomas, Liberty
Robert E. Tucker, St. Louis
Harold D. West, Kansas City
George P. Williams, Kansas City
Melvin R. Wilucki, St. Louis
Donald A. Withrow, Creve Coeur
Kenneth W. Zehnder, St. Louis

Continuing Education Coming Events

The continuing medical education accreditation program of the MSMA has full approval by AMA's Council on Medical Education. The institutions and functions listed here qualify for Category I credit for the AMA Physician's Recognition Award. All accredited institutions in Missouri are invited to send this information for listing in Missouri Medicine. *Please remember to include name of individual who can be contacted at your institution for additional information about your CME events.*

The Edward Mallinckrodt Institute of Radiology — Washington University School of Medicine
510 S. Kingshighway, St. Louis 63110
Contact: **Ronald G. Evens, M.D., Director**

(1982)

Jan. 11	City-Wide Radiology Conference St. Louis University
Feb. 8	City-Wide Radiology Conference — CT of the Genitourinary Tract
Mar. 8	City-Wide Radiology Conference — Photo-Electronic (Digital) Radiology
Apr. 14	Leroy Sante Lecture by Dr. Benjamin Felson, University of Cincinnati
May 10	City-Wide Radiology Conference — Neuroradiology

University of Missouri School of Medicine
Office of Continuing Education
M-240 Health Sciences Center, Columbia 65212
(314) 882-2256
Contact: **William D. Bradshaw, M.D.**

(1982)

Jan. 6-9	Diagnosis and Treatment of Headache (Camelback Inn, Scottsdale, Ariz.)
Feb. 15-17	Second Annual National Conference on Continuous Ambulatory Peritoneal Dialysis (Crown Center Hotel, Kansas City)
Mar. 9	Preceptors Day
Mar. 10-11	Fifth Annual Family Practice Update Session
Mar. 24-25	Third Annual Spring Surgery Update
Mar. 29-30	28th Annual Urology Seminar (Crown Center Hotel, Kansas City)
Apr. 2-4	A Working Conference on Authority, Responsibility and Organization
Apr. 22-23	Fifth Annual Primary Pediatrics for the Primary Physicians
May 7-9	Fifth Annual Missouri Cardiovascular Conference (Tan-Tar-A, Lake Ozark)

Mercy-Baptist Eye Foundation
615 S. New Ballas Rd., St. Louis 63141
Contact: **Richard B. Oglesby, M.D.**

(1982)

May 16	14th Eye Seminar: Extracapsular Cataract Extraction

Greater Kansas City Radiological Society
Note: 4:00 PM lectures will be held in the Dept. of Diagnostic Radiology, University of Kansas Medical Center, Kansas City, Kan.
6:30 PM lectures will be held at the Alameda Plaza Hotel, Kansas City

(1982)

Jan. 13	4:00 PM CAT Scanning of the Appendicular Skeleton
	6:30 PM CAT Scanning of the Spine
Feb. 10	4:00 PM Recent Advances in Diagnostic Ultrasound
	6:30 PM Obstetrical Ultrasound: An Update
Mar. 10	4:00 PM Digital Radiography — Equipment and Technical Considerations
	6:30 PM Digital Radiography Clinical Applications
Apr. 14	4:00 PM Percutaneous Abscess Drainage
	6:30 PM Percutaneous Biopsy Techniques

Washington University School of Medicine
Continuing Medical Education
Box 8063, 660 S. Euclid Ave., St. Louis 63110
(314) 367-9673 or (314) 454-3873
Contact: **Loretta Giacoletto, Office of CME**

(1982)

Jan. 17-22	Pediatric Gastrointestinal Disease (Keystone, Colo.)
Jan. 23-30	Obstetrics and Gynecology (Aboard the M/S Southward)
Apr. 2-5-May 3	Fourth Annual Current Concepts in Musculoskeletal Radiology and Orthopedics (Athens, Greece)

St. Louis University Medical Center
Continuing Education
3544 Caroline St., St. Louis 63101
(314) 664-9800, Ext. 127
Contact: **John A. Grellner, Director**

Mar. 31-Apr. 1	Recent Advances in Pediatric Health Care-Diagnosis

University of Missouri-Kansas City School of Medicine — Kansas City Southwest Clinical Society
Continuing Medical Education
2220 Holmes St., Kansas City 64108
(816) 276-1339
***Contact:* Alta Bingham**

(1982)

Jan. 16-23	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Steamboat Springs, Colo.)
Feb. 19-20	The Long Weekend: Medical Problems in the Patient Who Needs Surgery (Alameda Plaza)
Feb. 21-28	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Palm Springs, Calif.)
Feb. 28-Mar. 7	Traveling Medical Education Course — Kansas City Southwest Clinical Society (St. Thomas, U.S. Virgin Islands)
Mar. 18-20	Perspectives in Medical Care (Hyatt Regency Hotel)
Mar. 20-27	Traveling Medical Education Course — Kansas City Southwest Clinical Society (Crested Butte, Colo.)
Mar. 31	Reproductive Endocrinology and Infertility (Alameda Plaza Hotel)
Apr. 1-3	Update in Obstetrics and Gynecology (Alameda Plaza Hotel)
May 6-7	Surgical Problems — The Old and the New (Alameda Plaza Hotel)
June 5	Symposium on Physical Fitness (Crown Center Hotel)

(Continued in next column)

Menorah Medical Center
4949 Rockhill Rd., Kansas City 64110
(816) 276-8000
***Contact:* Erich W. Pollak, M.D., Director of Surgical Education, for the following:**

4:00 PM — Basic Sciences to Surgery Seminar
(Monday through Friday)
3:00 PM — Surgical Rounds
(Every Wednesday and Friday)
4:00 PM — Surgical Techniques Seminar
(Every second and fourth Wednesday)
4:45 PM — Morbidity and Mortality Conference
(Every fourth Wednesday)
8:00 AM — Morbidity and Mortality Conference
(Every second Saturday)
7:00 AM — Surgical Grand Rounds
(First and third Thursdays)

***Contact:* David S. Sneid, M.D., Director of Medical Education, for the following:**

9:00 AM — Medicine Staff Conference
(First, third and fourth Tuesdays)

BETHESDA EYE INSTITUTE
DEPARTMENT OF OPHTHALMOLOGY
ST. LOUIS UNIVERSITY SCHOOL OF MEDICINE
announces a
MICROSURGICAL WORKSHOP:
Vitreous Surgery for the Cataract Surgeon
FEBRUARY 20-21, 1982

COURSE DESCRIPTION: This course is designed for practicing ophthalmologists and residents-in-training. This course will encompass training in the prevention and management of vitreous loss at the time of cataract surgery and the role of vitreous cutters in the intraoperative and delayed complications of cataract surgery. The participants will have the opportunity of hands-on experience with a variety of vitreous cutters, including the Eye-Vac, Kaufman Vitrector, Ocutome, STAT system and Visc X.

- Saturday Lectures & Tapes:
  $35.00 Practicing Physicians
  NC Residents-in-Training
- Saturday Workshop:
  $65.00 Practicing Physicians
  $10.00 Residents-in-Training
- Sunday Workshop:
  $65.00 Practicing Physicians
  $10.00 Residents-in-Training

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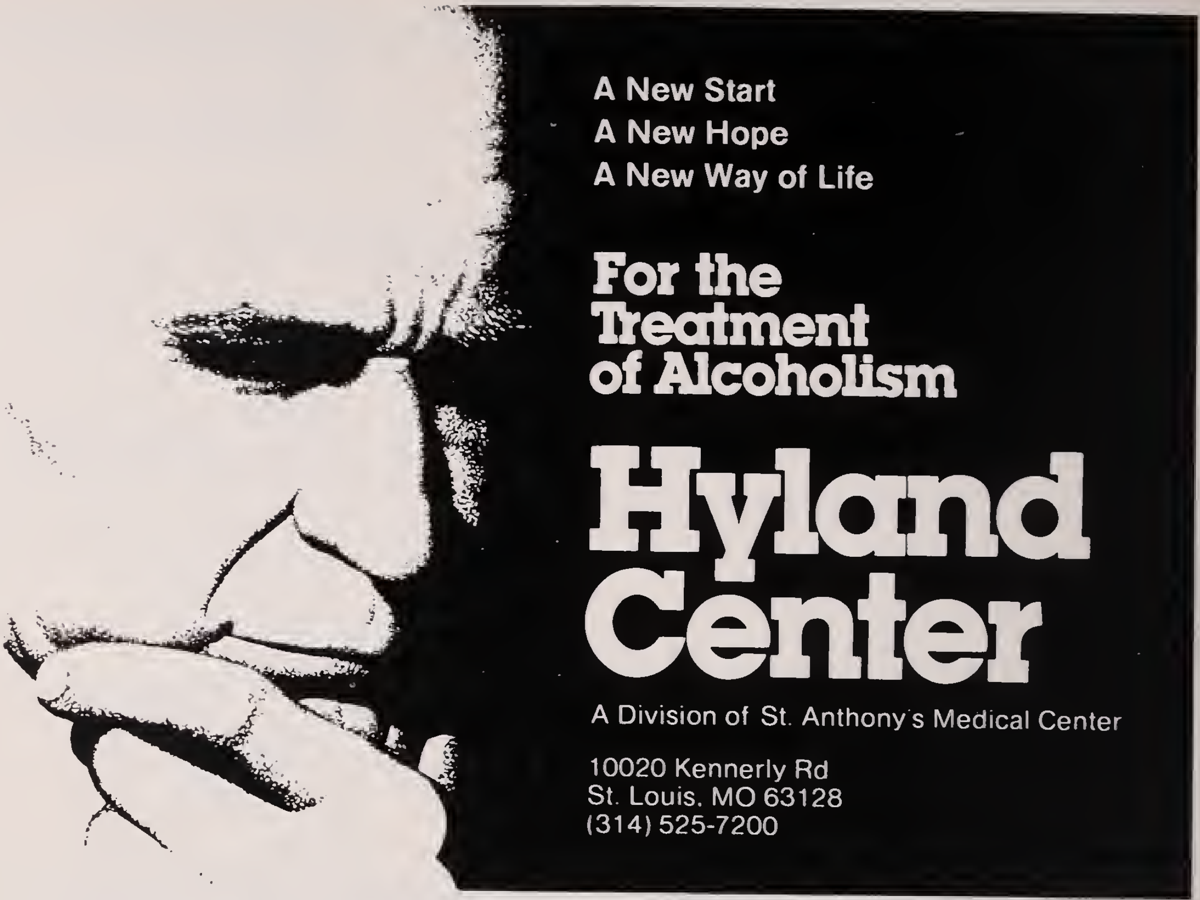
Jay A. Fleischman, M.D. Francis E. O'Donnell, Jr., M.D.
John J. Purcell, Jr., M.D.

7.0 CME Hours

ADDITIONAL INFORMATION: John A. Grellner, Continuing Medical Education Office, 1402 S. Grand Blvd., St. Louis, MO 63104. Tel: (314) 664-9800, Ext. 127.



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NEWS

From the Medical Schools

ST. LOUIS UNIVERSITY

The Hospital Association of Metroplitan St. Louis selected *George E. Thoma*, M.D., vice-president for the St. Louis University Medical Center, as the recipient of its Health Care Leadership Award.

Dr. Thoma

The association presents the award annually to the lay or professional man or woman who has, in the opinion of the association's board of directors, demonstrated outstanding leadership and dedication in helping a health care institution fulfill the mission of service to the community.

Gary C. Ridenour, M.D. has been named "Citizen of the Year" by the Human Development Corporation (HDC) in St. Louis. Dr. Ridenour, clinical instructor of medicine at the school of medicine and director of emergency services at City Hospital, will receive the award for innovative programs designed to improve health service to patients and victims of rape and drug abuse.

Dr. Ridenour

Dr. Ridenour has been instrumental in the planning and organization of a rape crisis center that would give priority treatment and counseling to victims of rape. The center, scheduled to begin operation in late October, will be housed at City Hospital.

Dr. Ridenour, a 1975 graduate of Autonoma University, Guadalajara, Mexico, received the first fellowship ever offered in critical care medicine at St. Louis University School of Medicine. He was appointed to his position at City Hospital last May.

Gary F. Gerard, Ph.D., associate professor of molecular virology, received a two-year $130,000 grant from the American Cancer Society to study the life cycle of mouse RNA tumor viruses. Known as retroviruses, these viruses cause cancer in most animal species.

Dr. Gerard

Dr. Gerard will focus on the Maloney leukemia virus which causes leukemia in mice. His work will help to contribute to research about how human cells become malignant and how to prevent malignancy.

Dr. Gerard came to the medical center in 1971 as a postdoctoral fellow from Michigan State University where he earned his Ph.D. degree.

The National Institute of Mental Health has selected *Rex Y. Wang*, Ph.D., assistant professor of pharmacology, as a recipient of a Type II, research scientist development award, which is a five-year $171,186 grant.

Dr. Wang's research interest is the study of the relationship between dopamine and schizophrenia. According to one hypothesis, an overactivity of the dopamine system in the brain may result in schizophrenia. By understanding how to control dopamine activity, the research could lead to the development of new antipsychotic agents with much less risk of neurological side effects than the agents now used.

Dr. Wang has been on the faculty at St. Louis University School of Medicine since September, 1979.

UNIVERSITY OF MISSOURI-KANSAS CITY

"The New Physician in a Changing World" was the topic of *Dr. Dennis O'Leary's* address at the School of Medicine's 1981 Convocation on November 8. Dr. O'Leary is dean for clinical affairs and professor of medicine and pathology at George Washington University School of Medicine and Health Sciences in Washington, D. C.

Dr. O'Leary, a native of Kansas City, was in the public eye earlier this year as the attending physician for President Ronald Reagan following the assassination attempt on the president.

After remarks by *Dr. E. Grey Dimond* and *Chancellor George A. Russell*, and a performance by the medical school's "On Call" singers, *Dean Harry S. Jonas* introduced Dr. O'Leary. After noting numerous changes that have occurred in medicine, Dr. O'Leary discussed the need for physician awareness of public expectations and perceptions; the pressures created by the increased cost of health care; challenges facing the new physician; and perceptions of medicine and society.

Several faculty members and students from the School of Medicine participated in the recent 92nd annual meeting of the Association of American Medical Colleges (AAMC) in Washington, D. C. *Louise Arnold*, Ph.D., coordinator for research in medical education at the medical school, organized a symposium on the "Role of the Liberal Arts in Baccalaureate/MD Degree Programs." *Lee Willoughby*, research assistant professor, and *L. Beaty Pemberton*, M.D., assistant dean for curriculum, also participated in that symposium.

Anne Jones, a Year-6 medical student, presented her research on medical students' self-concepts of masculinity and feminity in the session on Innovations in Medical Education. Another Year-6 student, *Mika Kamada*, attended the Organization of Student Representatives as an official representative of the school.

Others who attended the AAMC meeting from UMKC were *Dean Harry S. Jonas, Dr. Marjorie Sirridge, Dr. Hans Uffelman, Dr. Glenn Eberhardt, Dr. David Moffatt, Dr. Thomas Nicholas, Connie Currall, Mary Spratt, Regina Chollet, Russell Jones, Jr., Gloria Ragan, Rita Dennis* and *Marilyn McGuyre*.

The first Advanced Cardiac Life Support (ACLS) course at the School of Medicine was held in October as part of the Year-5 curriculum. When the course is fully implemented, certification in ACLS will be a requirement for student promotion to Year-6. *Vaughn Payne*, Pharm. D., is coordinating the course, which will be taught by faculty and staff of the schools of medicine, nursing and pharmacy.

The UMKC School of Medicine is one of only a few medical schools in the nation that requires certification in basic cardiopulmonary resuscitation and in advanced cardiac life support for graduation.

UNIVERSITY OF MISSOURI-COLUMBIA

The School of Medicine has announced three appointments to the basic sciences faculty.

They are *Drs. Linda Ansbacher*, assistant professor of pathology; *Michael Misfeldt*, assistant professor of microbiology; and *Travis Solomon*, associate professor of physiology.

Dr. Ansbacher graduated in 1975 from the University of Kansas School of Medicine and completed her pathology residency at UMC in June 1979.

Dr. Misfeldt, received his Ph.D. degree in microbiology from the University of Iowa in 1977. Since then he has been a staff fellow in immunology at the Laboratory of Molecular Genetics, National Institute of Child Health and Human Development.

Dr. Solomon received his Ph.D. in physiology in 1973 and his M.D. degree in 1974 from the University of Texas. He took a medicine internship at the University of Missouri-Columbia before taking fellowships at the department of cell biology at Yale University School of Medicine and the departments of medicine and physiology at UCLA. From 1977 to 1980, he was a research associate at Wadsworth VA Hospital in Los Angeles. In Columbia, he will also be associate chief of staff for research at the Harry S. Truman VA Hospital.

The Internal Medicine Department of the School of Medicine has announced six new faculty members.

They are *Drs. Greg Flaker, Joseph Muscato, Mary Muscato, Richard Murney, Jr., Paul Passamonte* and *Richard Schilsky*.

Dr. Flaker graduated from the UMC Medical School in 1976 and completed a residency in medicine in 1979. Prior to joining the faculty he was a fellow in cardiology at Ohio State University.

Drs. Joseph and Mary Muscato received their M.D. degrees in 1975 from the Medical College of Pennsylvania. They completed a residency at the UMC in 1978 and then took fellowships in hematology-oncology at Duke University Medical Center.

Dr. Murney graduated from the UMC Medical School in 1976. After a residency at St. Louis University, he returned to the UMC for a fellowship in gastroenterology.

Dr. Passamonte received his M.D. degree in 1974 from Columbia University. After his residency at State University of New York at Buffalo, he took a two-year fellowship in pulmonary medicine at the University of Oklahoma Health Sciences Center.

Dr. Schilsky received his M.D. degree in 1975 from the University of Chicago Pritzker School of Medicine. After completing a residency at Parkland Memorial Hospital in Dallas, he was a clinical associate at the National Cancer Institute from 1977 to 1980. Before coming to UMC, he was a cancer expert in the NCI's Division of Cancer Treatment.

WASHINGTON UNIVERSITY

Andrew P. Goldberg, M.D., assistant professor in the departments of preventive medicine and medicine and a Barnes physician, has been awarded a $17,500 grant from the American Diabetes Association (ADA) to determine the metabolic effects of exercise training in patients with Type II (non-insulin dependent) diabetes mellitus.

Goldberg's research will examine the metabolic effects of an improvement in work capacity (VO_2 max) on lipoprotein levels and compositions and glucose metabolism in Type II diabetics. Together with *Drs. Julio V. Santiago*, assistant professor in the Department of Medicine and associate professor in the Department of Pediatrics, and *John Gavin, III*, assistant professor in the Department of Medicine, Dr. Goldberg will investigate the mechanism(s) by which these effects occur. Dr. Santiago is also a member of Barnes and St. Louis Children's hospitals. Dr. Gavin is a member of Barnes.

The effects of a six-week hiatus in training on these parameters will be determined after these patients have achieved their prescribed level of physical fitness.

The data in the trained individuals also will be compared to results obtained from a control group of Type II diabetics treated by dietary modification and weight loss. An assessment of the magnitude of the changes in lipoprotein and glucose metabolism due to training as well as their comparison to normative date should determine the therapeutic potential for exercise training in patients with Type II diabetes mellitus. If exercise training alters lipoprotein and glucose metabolism in an "anti-atherogenic" manner in the Type II diabetic, it would provide an effective and self-initiating therapeutic modality for the Type II diabetic.

Physicians interested in referring patients can contact Dr. Goldberg at 314-454-3461. Patients can call directly for an appointment at 454-3162.

The School of Medicine, one of America's largest centers studying and treating growth deficiencies in children for nearly 25 years, has just begun testing a new synthetic growth hormone. It is one of ten medical centers in the U. S. to test the hormone, produced by recombinant DNA technology at the Genentech Company near San Francisco. If the tests are successful, the synthetic growth hormone promises to increase dramatically the supply, and eventually the cost, of growth hormone for treatments.

Although children can be treated for several years, the tight supply of natural hormone led to a general rule that they would be treated, sometimes only intermittently, until reaching a height of five feet. The promise of synthetic hormone is that children will receive continuous therapy until their bones fuse at maturity or they reach the height they desire.

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New Members

Willa Jean Arnold, M.D., 1204 Gulf St., Lamar 64759, has become a member of Barton County Medical Society. Dr. Arnold is a native of Lamar, received her preliminary at the University of Kansas and the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Kansas City in 1978. She specializes in family practice.

Mark F. Blumenthal, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Blumenthal is a native of St. Louis, received his preliminary education at Dartmouth College and his M.D. degree at Washington University in 1976. He specializes in general surgery.

Curt E. Calcaterra, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Calcaterra is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1980. He specializes in internal medicine.

Chalermquan S. Chadaratana, M.D., 8001 W. Florissant, St. Louis 63136, has become a member of St. Louis Metropolitan Medical Society. Dr. Chadaratana is a native of Thailand, received her preliminary education at Chulalongkorn University and her M.D. degree at Siriraj Medical School in 1967. She specializes in obstetrics and gynecology.

Don Dongcheul Cho, M.D., P.O. Box 669, Webb City 64870, has become a member of Jasper County Medical Society. Dr. Cho is a native of Korea, received his preliminary education at Pusan National University and his M.D. degree at Pusan National University in 1967. He specializes in internal medicine.

June M. Clark, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Clark is a native of Cairo, Ill., received her preliminary education at the University of Missouri-Kansas City and her M.D. degree at the University of Missouri-Columbia in 1980. She specializes in family practice.

Michael L. Clark, M.D., 1225 Graham Rd., Florissant 63031, has become a member of St. Louis Metropolitan Medical Society. Dr. Clark is a native of Toledo, Ohio, received his preliminary education at the University of Detroit and his M.D. degree at Ohio State University in 1974. He specializes in anesthesiology.

Cary H. Freeman, M.D., 8225 Florissant Rd., St. Louis 63121, has become a member of St. Louis Metropolitan Medical Society. Dr. Freeman is a native of Washington, D.C., received his preliminary education at Howard University and his M.D. degree at Howard University in 1973. He specializes in ophthalmology.

Laila G. Gabrawy, M.D., 1040 N. Mason Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Gabrawy is a native of Egypt, received her preliminary education at Cairo University and her M.D. degree at Cairo University in 1965. She specializes in ophthalmology.

David L. Gifford, M.D., 7401 Southern Dr., Columbia 65201, has become a member of Boone County Medical Society. Dr. Gifford is a native of Ft. Dodge, Ia., received his preliminary education at the School of the Ozarks and his M.D. degree at the University of Missouri-Columbia in 1977. He specializes in gastroenterology.

C. Keith Goeking, M.D., 1502 N. 36th, St. Joseph 64506, has become a member of Buchanan County Medical Society. Dr. Goeking is a native of Washington, D.C., received his preliminary education at Wheaton College and his M.D. degree at the University of Virginia in 1974. He specializes in obstetrics and gynecology.

Emily Wolcott Guyer, M.D., Student Health, Columbia 65201, has become a member of Boone County Medical Society. Dr. Guyer is a native of El Paso, Tex., received her preliminary education at the University of Missouri-Columbia and her M.D. degree at the University of Missouri-Columbia in 1958. She specializes in pediatrics.

Thomas H. Hale, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Hale is a native of St. Louis, received his preliminary education at Iowa State University and St. Louis University and his M.D. degree at the University of Missouri-Columbia in 1980. He specializes in internal medicine.

Sidney J. Hanish, M.D., 950 Francis Pl., St. Louis 63105, has become a member of St. Louis Metropolitan Medical Society. Dr. Hanish is a native of Fargo, N.D., received his preliminary education at North Dakota State University and his M.D. degree at Washington University in 1977. He specializes in ophthalmology.

Michael P. Harrington, M.D., #2 Westbury, St. Charles 63301, has become a member of St. Charles-Lincoln County Medical Society. Dr. Harrington is a native of Sturgeon Bay, Wis., received his preliminary education at the University of Wisconsin and his M.D. degree at St. Louis University in 1974. He specializes in general surgery.

John W. Hubert, M.D., 12255 DePaul Dr., Bridgeton 63044, has become a member of St. Louis Metropolitan Medical Society. Dr. Hubert is a native of Indianapolis, Ind., received his preliminary education at Wabash College and his M.D. degree at Washington University in 1975. He specializes in internal medicine and cardiology.

Henry T. Hyman, D.O., 5140 N.E. Antioch Rd., Kansas City 64119, has become a member of Clay County Medical Society. Dr. Hyman is a native of Jersey City, N.J., received his preliminary education at Long Island University and his D.O. degree at Kirksville College of Osteopathic Medicine in 1976. He specializes in obstetrics and gynecology.

Edward J. Kunst, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Kunst is a native of St. Louis, received his preliminary education at the University of Missouri-Columbia and his M.D. degree at the University of Missouri-Columbia in 1980. He specializes in internal medicine.

Timothy G. Lane, M.D., 2520 Yorktown Dr., Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Lane is a native of Detroit, Mich., received his preliminary education at the University of Miami and his M.D. degree at Bowman Gray School of Medicine in 1976. He specializes in gastroenterology.

Jack E. Mobley, M.D., 800 Stadium Rd., Columbia 65201, has become a member of Boone County Medical Society. Dr. Mobley is a native of Little Rock, Ark., received his preliminary

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education at the University of Arkansas and his M.D. degree at Vanderbilt University in 1948. He specializes in urological surgery.

Helen Thanh-Huong T. Nguyen, M.D., 510 Francis St., St. Joseph 64501, has become a member of Buchanan County Medical Society. Dr. Nguyen is a native of Viet Nam, received her preliminary education at the University of Saigon and her M.D. degree at the University of Saigon in 1972. She specializes in allergy and immunology.

Thomas E. Niesen, M.D., 4989 Barnes Hospital Plaza, St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Niesen is a native of St. Louis, received his preliminary education at Tulane University and his M.D. degree at Tulane University in 1979. He specializes in general surgery.

Barbara Scandurra O'Dea, M.D., 615 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. O'Dea is a native of New York City, N.Y., received her preliminary education at Cornell University and her M.D. degree at St. Louis University in 1979. She specializes in internal medicine.

Robert J. Paino, M.D., 6420 Clayton Rd., St. Louis 63117, has become a member of St. Louis Metropolitan Medical Society. Dr. Paino is a native of St. Louis, received his preliminary education at St. Louis University and his M.D. degree at St. Louis University in 1981. He specializes in internal medicine.

Jeffrey T. Pietz, M.D., Scott Air Force Base, Belleville, Ill. 62223, has become a member of St. Louis Metropolitan Medical Society. Dr. Pietz is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1978. He specializes in pediatrics.

Juanita C. Polito-Colvin, M.D., 500 S. Kingshighway Blvd., St. Louis 63110, has become a member of St. Louis Metropolitan Medical Society. Dr. Colvin is a native of San Antonio, Tex., received her preliminary education at the University of Dallas and her M.D. degree at University of Texas Southwestern-Dallas in 1979. She specializes in pediatrics.

Dennis A. Popp, M.D., 1402 S. Grand Blvd., St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Popp is a native of St. Louis, received his preliminary education at Washington University and his M.D. degree at St. Louis University in 1976. He specializes in internal medicine, endocrinology and diabetes.

Richard A. Sargent, M.D., 621 S. New Ballas Rd., St. Louis 63141, has become a member of St. Louis Metropolitan Medical Society. Dr. Sargent is a native of Memphis, Tenn., received his preliminary education at Southeast Missouri State University and his M.D. degree at the University of Missouri-Columbia in 1976. He specializes in anesthesiology.

Jacquelyn C. Schnidman, M.D., 1465 S. Grand, St. Louis 63104, has become a member of St. Louis Metropolitan Medical Society. Dr. Schnidman is a native of St. Louis, received her preliminary education at the University of Missouri-Columbia and her M.D. degree at St. Louis University in 1979. She specializes in pediatrics.

Donald E. Schnurpfeil, M.D., Dept. of Family and Community Medicine, University of Missouri, Columbia 65201, has become a member of Boone County Medical Society. Dr. Schnurpfeil is a native of Chicago, Ill., received his preliminary education at the University of Notre Dame and his M.D. at the University of Chicago in 1979. He specializes in family practice.

Huey Duane Tewis, D.O., Box 539 P, Twin Lake, Rt. 2, Cape Girardeau 63701, has become a member of Cape Girardeau County Medical Society. Dr. Tewis is a native of New Orleans, La., received his preliminary education at Loma Linda University and his D.O. degree at Kansas City College of Osteopathic Medicine in 1975. He specializes in anesthesiology.

Jack R. Uhrig, M.D., 114 W. Kelling Ave., Waverly 64096, has become a member of Lafayette-Ray County Medical Society. Dr. Uhrig is a native of Carrollton, received his preliminary education at the University of Missouri-Kansas City and his M.D. degree at the University of Missouri-Kansas City in 1978. He specializes in internal medicine.

New Student Members

St. Louis University

Steve Thalberg
Mary Jane F. Thorpe

University of Missouri-Columbia

J. Bruce Abele
David D. Benage
E. Stephen Bolesta
Douglas E. Borg
James Boyd
James E. Bradley
Dan M. Chapel
Karen L. Chaplin
Lynn A. Cornelius
John D. DeSpain
Alberto A. Diaz-Arias
William J. Dierberg
Thomas D. Eppright
Victoria J. Fraser
Gita Ghosh
Max L. Governe
Andrea J. Grooters
Bernadette G. Harris
William R. Heifner
David J. Herman
Larry Ho
Daniel F. Hoft
Jo H. Jaeger
Paul D. King
Carlo L. Klott
Kay E. Knipschild
Kent I. Kossoy
Howard L. Lang
Derick Lau
Jeffrey S. Levy
James H. Long, Jr.
Eric D. Lopatin
Patrick J. McLaughlin
John S. Menius
Randall E. Mueller
Hien N. Nguyen
Rick L. Perkins
Michael F. Rapp
John R. Sands
Mary C. Schmidt
Rosella Sciortino
Jeffrey A. Sharp
Brian S. Skrainka
Mark Stroble
Anne Thomas
Ronald Weiss
Elaine Wolf

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In Memoriam

Thomas L. Howden, M.D., 2723 Francis St., St. Joseph 64501, graduate of the University of Kansas, 1918; member of Buchanan County Medical Society; aged 88; died Sept. 21, 1981.

Herbert J. Rudi, M.D., 3553 Crittenden, St. Louis 63118; graduate of St. Louis University, 1927; member of St. Louis Metropolitan Medical Society; aged 81; died Oct. 10, 1981.

Mary Jane Skeffington, M.D., Clayton House Retirement Center, 1251 E. Clayton Rd., Manchester 63011; graduate of Loyola University, 1936; member of St. Louis-Metropolitan Medical Society; aged 85; died Oct. 12, 1981.

M. Wayne Reynolds, M.D., P.O. Box 86, Warrensburg 64093; graduate of Loma Linda University, 1958; member of Johnson County Medical Society; aged 54; died Oct. 20, 1981.

Harley I. Galbol, Sr., M.D., 522 Elms Blvd., Excelsior Springs 64024; graduate of University of Copenhagen, 1948; member of Clay County Medical Society; aged 60; died Oct. 23, 1981.

Ooch Thomas Cantrell, Jr., M.D., 706 S. High, Butler 64730; graduate of University of Missouri-Kansas City, 1979; member of West Central County Medical Society; aged 26; died Oct. 25, 1981.

Harold M. Roberts, M.D., 216 W. 99th Terr., Kansas City 64114; graduate of University of Kansas, 1925; member of Jackson County Medical Society; aged 87; died Oct. 26, 1981.

John S. Sennott, M.D., 1593 S.W. O'Hara Dr., Port Charlotte, Fl. 33952; graduate St. Louis University, 1943; member of Cole County Medical Society; age 62; died Oct. 27, 1981.

Harvey E. Morris, M.D., 12632 Friendship Ridge Lane, St. Louis 63127; graduate of St. Louis University, 1934; member of St. Louis Metropolitan Medical Society; aged 75; died Nov. 3, 1981.

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inBrief

A summary of AMA, medical & health news

American Medical Association/535 North Dearborn Street/Chicago, Illinois 60610/Phone (312) 527-1500/TWX 910-221-0300

THE AMA IS PLANNING a series of follow-up activities to its recent Conference on Increased State Responsibility for Health Programs. The activities are designed to maintain leadership for organized medicine's involvement with the shifting of substantial health program responsibility to the states. The activities will include increasing liaison with the various organizations representing state governments; periodic AMA surveys of the states to determine approaches on block grant implementation and Medicaid changes and communicating this information to other states; AMA involvement with state medical societies to provide assistance in developing specific legislative and regulatory proposals or responses; and devoting portions of regional and annual state health legislation meetings to examining and discussing such issues.

PEOPLE'S REPUBLIC OF CHINA will have its own edition of the *Journal of the American Medical Association*. Publication will begin in January, 1982 as a result of an agreement signed by AMA publishers and officials of the Chinese Medical Association. Initial press run will be 50,000 copies, with a potential audience of 200,000 health care professionals in China. The Chinese Medical Association will select *JAMA* articles and translate them into Chinese for publication six times a year. "We are proud of our publishing activity, and the Association believes its role as the world's largest and leading clinical and scientific publisher will continue to grow," said Joseph F. Boyle, M.D., chairman of the AMA Board of Trustees.

AMA AGREEMENTS with three publishers in Europe will create by early next year a German-language edition of the *Journal* for physicians in West Germany, Switzerland and Austria, and Flemish and French-language editions in Belgium. *JAMA* already is published in Japanese, and in French-language editions in France and Switzerland. "In just over one year, the French edition has become the most widely read clinical journal in that country," said AMA Executive Vice-President James H. Sammons, M.D.

THE MEDICAID PROGRAM should continue to preserve the "fundamental privilege of every patient, freedom of choice," AMA President Daniel T. Cloud, M.D., told the AMA Conference on Increased Responsibility for Health Programs. "The language of the new federal health budget will allow the states to apply for waivers to bypass the freedom of Medicaid recipients to choose their own providers," he said. Medicaid programs that receive waivers would be able to specify providers and would then be able to negotiate fees with that limited group of providers. Dr. Cloud said the waivers would result in "an officially-sanctioned dual system of health care, one level of service for the poor, and a superior level of choice and options for everyone else."

FIRST IMPRESSIONS are important, says a new AMA brochure titled "Preparing a Professional Vitae." The brochure contains tips on the format and content of a curriculum vitae, including length, use of commercial resume services, printing and references. Single copies are available from Physicians' Placement Service, AMA Headquarters.

REQUIRED LABELING of sodium and potassium content of foods was supported by the AMA in congressional testimony. "Most persons for whom sodium and potassium control is prescribed or advised need more information than is now available to them to control their daily intake of these two substances," the AMA witness said. The AMA favors expanding legislation before the House to include labeling for meat and poultry products regulated by the Agriculture Department. "Unless some action is taken—voluntary or otherwise—these patients' needs will continue to be unmet," the witness said.

SETTING UP PRACTICE, designing office space, training receptionists and valuing a medical practice are a few of the topics covered in AMA publications on practice management. Medical societies and individual physicians can get a complete listing by writing to the Department of Practice Management, AMA Headquarters. Ask for "How Well Are You Minding Your Business?"

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